

MAY 24 1923

Registered at the G.P.O., Sydney, for Transmission by Post as a Newspaper.

Published Weekly.

Price 1s.

Medical Lib

THE

MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—10TH YEAR.

SYDNEY: SATURDAY, APRIL 7, 1923.

No. 14.

Surgical Instruments

We are pleased to announce that good general stocks of our Surgical Instruments have arrived and that regular supplies are now coming forward. Members of the Profession are cordially invited to visit our Show Rooms.

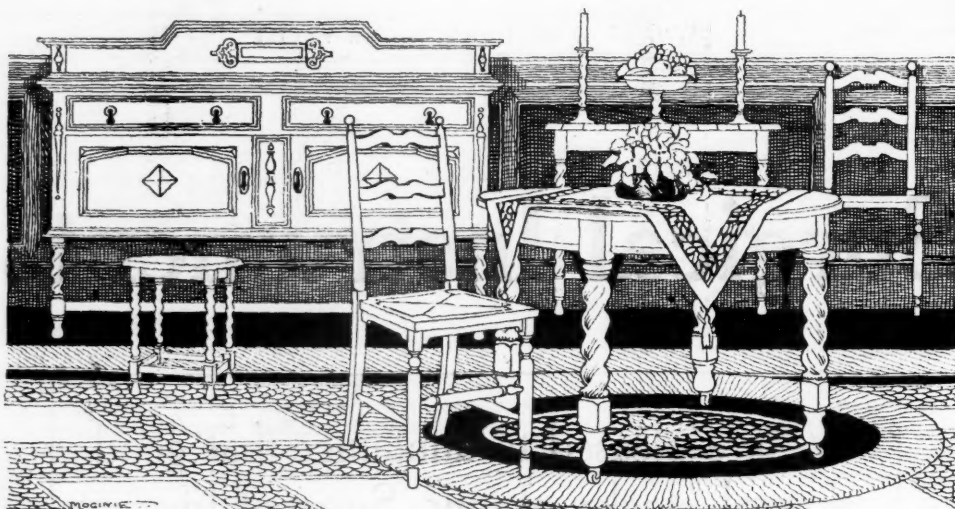
Allen & Hanburys (Australasia) Ltd.

Instrument Makers to H.M. Army and H.M. Navy

AUSTRALASIAN BRANCH:

B.M.A. BUILDING : Elizabeth Street, Sydney

"The present-day search for Economy leads straight back to Quality."



The Dining-Living Room in our £225 Furnishing Scheme

Jacobean Mirror, E1/176 £4/15/-
 4 ft. 9 in. Oak Sideboard,
 B1/209 £19/15/-
 4 ft. Oak Circular Table,
 B6/127 A. F. £10/10/-
 Oak Side Table, D7/271 £5/15/-
 6 ft. 6 in. Settee and two
 Easy Chairs, upholstered
 and covered in Tissue at
 10/6 per yard. A1/267 £42/15/-

Oak Jacobean Stool, D4/162 £2/15/-
 4 Small Chairs with rush
 seats, A3/268 £8/8/-
 12 feet. x 9 ft. Axminster
 Carpet £11/10/-
 1 pr. Poplin Curtains and
 Valance, applique Cre-
 tonne at base, with laths
 and fittings, pair Holland
 Blinds with tucks . . . £5/10/-

Beard Watson & Co. Ltd.
 GEORGE STREET, SYDNEY.

THE MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—10TH YEAR.

SYDNEY: SATURDAY, APRIL 7, 1923.

No. 14.

Table of Contents

	PAGE.		PAGE.
ORIGINAL ARTICLES—		CURRENT COMMENT—	
"An Address," by T. W. LIPSCOMB, M.B., CH.M.	365	Creatinin Excretion and Renal Function	382
"A Pioneer Australian Surgeon and His Times: Part I.," by NORMAN J. DUNLOP, B.A., B.Sc., M.B., CH.M.	367	The Placenta of the Lizard <i>Tiliqua Scincoides</i>	383
"Echinococcus Multilocularis: What is Meant by this Term?" by I. CLUNIES ROSS, B.V.Sc.	372	Arsenic and the Spinal Cord	383
REPORTS OF CASES—		ABSTRACTS FROM CURRENT MEDICAL LITERATURE—	
"A Case of Sarcoma of the Mesentery: Successful Removal Involving Resection of the Ascending Colon and 237.5 Centimetres of the Ileum with Pathological Report," by GEORGE BELL, O.B.E., M.B., CH.M.	375	Medicine	384
"Pathological Report," by KEITH INGLIS, M.D., CH.M.	378	BRITISH MEDICAL ASSOCIATION NEWS—	
REVIEWS—		Annual Meeting: New South Wales Branch	386
Diseases of the Ear, Nose and Throat	379	Medico-Political	390
Typhus Fever	379	CONGRESS NOTES—	
St. Ignatius' College Magazine	380	The Australasian Medical Congress (British Medical Association)	390
UNIVERSITY INTELLIGENCE—		CORRESPONDENCE—	
The University of Sydney	380	Railway Concessions to Congress	391
LEADING ARTICLES—		The Use and Misuse of the Tooth Brush	391
The Autonomy of the Branches	381	NAVAL AND MILITARY—	
		Appointments	391
		PUBLIC HEALTH—	
		Plague Regulations	392
		BOOKS RECEIVED	392
		MEDICAL APPOINTMENTS	392
		MEDICAL APPOINTMENTS: IMPORTANT NOTICE	392
		DIARY FOR THE MONTH	392
		EDITORIAL NOTICES	392

An Address.¹

By T. W. LIPSCOMB, M.B., CH.M. (SYDNEY).

Retiring President of the New South Wales Branch of the British Medical Association.

THIS is the last occasion of my occupying the Presidential chair of this important Branch and I am glad to have this opportunity of making some remarks as to the Association, its aims, its objects and its ideals.

The present is a suitable time to make reference to this subject, as the British Medical Association has been brought before the public so prominently during the past year by a certain section of the lay press.

The Association in general and this Branch in particular was established for the promotion of medicine and allied sciences, to maintain the honour and interests of the profession and foster a feeling of friendship among the practitioners. The essential reason of our existence is scientific and the advancement of knowledge in the various branches of our art.

¹ Delivered at the Annual Meeting of the New South Wales Branch of the British Medical Association on March 23, 1923.

The various methods of carrying out such objects are clearly set out in the Memorandum of Association of our Branch.

As a corollary to the scientific work, other matters have arisen from time to time, perhaps the better known one being the regulation of friendly society contract practice. I think this Branch may fairly claim that as the result of its work, there is no better contract medical service in the world than exists in this State; it is on a most equitable and fair basis and the universal adoption of the Common Form of Agreement has been most satisfactory to the lodges, their members and medical officers.

The importance of this is that any factor which makes for more contentment in our profession, must lead to better scientific work and thus be for the public benefit.

Among the aims and ideals of our profession, there must be written and, to my mind what is more important, unwritten rules of right custom—the proper thing to do one with another—and thus enhance that feeling of friendship that ought to exist and that should make us regard our next door neighbour not so much as a competitor as a professional colleague.

If one of our members ever comes to me with a grievance about some other practitioner, I invariably reply, "Have you seen him personally and discussed the matter with him? Have you heard his side of the case?" I am generally told: "No!" I do my best to induce those two men to meet and talk it over. You generally find that there have been trivial differences, perhaps some want of candour or wrong interpretation put on the other's actions and, more often than not, that interview ends with some liquid refreshment taken together out of cups or glasses, a mutual shaking of hands and renewal of former friendship and good feeling.

Such a course of action is far better than to have a grievance nursed in secret on each side, little bits added as time goes on and this perhaps leads to life-long bitterness and enmity.

In our relations one with another we should scorn to do anything mean, "to take points," to indulge in any "oblique form" of advertising or anything of that sort; "it isn't cricket" is the best way I can put it.

In furtherance of our aims and ideals, I look upon medical meetings as of outstanding importance. The very nature of our work, whether as general practitioner or consultant, tends towards aloofness and towards making one insular, and the best remedy is to go to meetings and listen to and join in the discussions. It brings out traits of character and ability in unsuspected quarters, cultivates a feeling of mutual respect, gives one more zest for one's own work, and above all, is the educational aspect. All these factors help to make us better doctors and must be for the public benefit. For my own part, I have never gone to a meeting that I have not learnt something or had a new aspect on a certain disease brought to my notice.

We have our regular meetings of the Branch and clinical meetings and we welcome the increasing number of meetings of local association in country centres. If the country associations would notify us in good time of their meetings, we would always endeavour that one of the Council or someone else from the city would attend.

It has been my pleasure to be present at different country meetings and the warmth of welcome and hospitality are beyond measure and well repay the time and trouble taken. It does one good to see the enthusiasm with which senior men, men who have gone grey in the service of an honoured profession, come fifty or one hundred miles to attend the meetings of their local association.

Perhaps I ought to make some mention of our troublous time of the past twelve months. It has indeed been an anxious and strenuous time for those who are elected to look after the interests of the Branch. First of all was the matter of a member accused of infamous conduct in a professional respect. The charges made were viewed by the Council as being of a very serious character. Under

our Articles of Association it is quite impossible for the Council to undertake a public inquiry; the Council has no means of collecting evidence, no power to compel witnesses to attend and certainly no power to take evidence on oath.

The journal that brought the charges to the notice of the Council, was informed of this. The journal in question refusing to approach the Chief Secretary to request him to act under the *Medical Practitioners' Act* of New South Wales, the Council itself approached the Minister and urged him to have the matter brought officially before the Medical Board for hearing, the Board being empowered under the *Act* to hold such inquiry. The Minister acceded to the request and in due time the Medical Board held the inquiry.

Another matter that caused the Council much thought was that the Branch was the subject of an action. This matter being still *sub judice*, it is inadvisable to refer to the facts of it at the present moment.

The action was defended on lines advised by Counsel. The funds of the Branch are quite insufficient to allow for such extraordinary expense as a prolonged law-suit and appeal and the Council has had to place before members, the moral duty and responsibility of each and every member to subscribe a moderate amount to a Legal Expenses Contingency Fund.

In doing this the Council considered that a circular letter ought to be sent to members setting out some details of what led up to the action and of the various steps taken in the circumstances as they arose from time to time. But as an appeal was pending, our Counsel advised that such details should not be sent out.

The appeal has been heard and judgement reserved. I am very hopeful that such judgement will be in our favour.

I need hardly add that the Council is entrusted with carrying out the duties and management of the affairs of the Branch, and to me it has been an honour and a privilege to be associated on the Council with men who have devoted so much of their time in the interests of the profession and I would not be human if, after working with these men, I did not feel proud of the amount of unrewarded enthusiasm, patience and energy, which was put forward by them in the service of the profession.

I have an exultant pride in the honour and uprightness of our calling.

We are a profession, as distinguished from a trade; in the latter there is always a ready means of fixing values, by the pound or yard or number, but the services of our profession can never be weighed in a balance or measured by a length or number. Let us never lower our standards.

Whether it be a new remedy, a new surgical instrument or appliance, or a new method of treatment, let us still see to it that such is published forthwith and

made available to any sufferer, no matter in what part of the world he may be.

Don't let us soil our hands with patents and secret remedies and formulæ.

With all the confidences committed to us by our patients in our consulting rooms and their honour given into our hands, how rare it is that ever a medical man is accused of divulging information that should be held sacred.

Among the hundreds and thousands of practising physicians, how few are the lapses from honourable conduct.

We are trusted by the community as no other class of man is trusted and, thank God, we have proved ourselves worthy of that trust.

In the fight for pure milk, water, food and of wholesome housing, doctors have always been in the lead.

In preventive medicine, as instanced by the abatement of such diseases as small pox, typhoid, typhus, diphtheria, dysentery *et cetera*, it is the medical profession that leads all of these battles to our own financial detriment.

In spite of the gibes and jeers of a section of lay journalism that accuses us of mean and sordid motives, I say all honour to the men of our profession in their unselfish lives and devotion to the welfare and health of the community.

A PIONEER AUSTRALIAN SURGEON AND HIS TIMES.

BY NORMAN J. DUNLOP, B.A., B.Sc., M.B., CH.M. (Syd.),
Honorary Surgeon to the Newcastle Hospital.

PART I.

Introductory.

DOCTOR JOHN HARRIS, of Newcastle, much to the regret of the whole community, has been laid aside for many months with a very painful affliction and I visit him frequently. The doctor has been in Newcastle between fifty and sixty years and is a veritable repository of the medical history of the Newcastle district during the whole of that long period. I thoroughly enjoy literally sitting at his feet smoking and chatting with him, but I should enjoy our *causées* ever so much more were it not for the fact that my old friend at times suffers very acutely. The embodiment of optimism, he is an inspiration and a tonic to me whenever I see him. In his talks of men who have lived and things that have happened in the days long ago, he frequently makes mention of his uncle, the late Dr. Richard Harris, a man remarkable in many ways; it is he whom I wish to make the subject of this paper.

Dr. Richard Harris.

The memory of those who have lived worthily and done things, should not be allowed to pass into oblivion. The good that they have done, should live after them; their weaknesses, foibles and fail-

ings should be forgotten. Especially should we remember the pioneers, those "rude forefathers," who have blazed the path and without whose efforts (successes and failures) we should not be in the position we are in to-day. It is very often easy to follow where another has trod; but to be an explorer, a man requires courage of no mean order, resource, soundness of judgement and a clear brain. He must also have confidence in himself and be able to inspire confidence in others. In short, he must have a considerable personality. Richard Harris was just such a man and we should remember him as one of the pioneers of abdominal surgery in Australia. The son of a captain in the Fourteenth Light Dragoons, he was born in Wexford, Ireland, one hundred and fifteen years ago. At the time of his birth the atmosphere was electric; there were wars and rumours of wars, battles were fought on land and sea and the fate of the Empire was in the balance. Richard Harris was only seven years of age when the fateful Battle of Waterloo was fought and won, but, young as he then was, he retained a very vivid recollection of the excitement that prevailed when the news of Napoleon's downfall reached England. Brought up in a virile environment, he early learned the duty we owe to our bodies, so athletics became part of his religion. Boxing, wrestling, walking and riding were his pastimes, so who can wonder that he developed into a strong, vigorous lad, capable of enduring any degree of physical effort. It was well for him that this was so, for his future career required great powers of endurance, as well as a clear brain and well-ordered mind. At school he was neither a genius nor a dunce, but he worked hard and always stood well up in the class lists. At the age of sixteen years he was apprenticed to a local surgeon and attended the medical and surgical practice of the County of Wexford Infirmary for the next five years. Later he "walked" the Meath Hospital, Dublin, from November 1, 1828, till May 1, 1829, and Mercer's Hospital, Dublin, from November 1, 1829, till May 1, 1830. His certificate of attendance at the Meath Hospital was signed by two men well known in medical history. The one was Robert J. Graves, tall, dark, *distingué* and warm-hearted, whose clinical lectures Trousseau read and re-read with the highest admiration. He requested that the phrase, "He fed fevers," should be his epitaph. Graves also published a description of exophthalmic goitre, so admirable that the disease still bears his name. The other was William Stokes, son of the Regius Professor of Medicine in Dublin, who succeeded his father in that position in 1845. In 1846 he published his celebrated account of the Stokes-Adam's disease.

During his sojourn in Dublin, Richard Harris attended lectures in the theory and practice of surgery, anatomy and physiology during the term 1829-1830. He also dissected and attended anatomical demonstrations during the same period. All of these classes were taken out at the School of Surgery of the Royal College of Surgeons in Ireland. His instruction in the theory and practice of medi-

cine, pharmaceutic chemistry, *materia medica* and medical botany was given by Dr. Samuel Stratten at his house, Number 19, William Street, Dublin. His certificate from the Royal College of Surgeons was signed by Abraham Colles, the leading Irish surgeon of his day. Colles tied the sub-clavian artery twice (1811-1815) and was the first to tie it within the *scalenus* (1816). He is said to have been the first man in Europe to tie the innominate successfully. His most important works are his original description of the fracture of the carpal end of the radius—Colles's fracture; and his "Practical Observations on the Venereal Disease," in which he states Colles's law. On August 10, 1830, Richard Harris obtained a Diploma in Obstetrics in Dublin. In the same year he presented himself at the examination for and was successful in obtaining the Diploma of Member of the Royal College of Surgeons in London. There was at that time only one examination for the Membership; the Fellowship had not yet been instituted. It is interesting to note here that the Royal College of Surgeons in London got its new charter in 1800 and settled in a house in Lincoln's Inn Fields under the rule of a Court of Assistants of twenty-one members, one of whom was styled the Master. This was changed by the charter of 1822, which created a President, two Vice-Presidents and a Council. In 1843 the title was given to it of the Royal College of Surgeons of England and the Fellowship was created. Richard Harris received his Diploma on July 30, 1830. The members of the Court of Examiners who signed this document were: R. C. Headington, President; Robert Sleate and John P. Vincent, Vice-Presidents; William Buzard, William Lynn, Astley Cooper, Anthony Carlisle, Thos. L. Thomas, George James Guthrie and Anthony White. He was enrolled by Edm. Balfour, Secretary. Of these gentlemen, all prominent in their day, very few are known to us now. I shall briefly refer to three of them. Sir Astley Paston Cooper, tall, handsome, erect and slim, was a pupil of John Hunter. He was a surgeon at Guy's Hospital in 1800 and a pioneer in vascular surgery. In 1817 came his celebrated feat of ligating the abdominal aorta. In 1820 he operated on George IV., for which he received a baronetcy. His work on hernia is still well known and we have Cooper's fascia, Cooper's hernia and other eponyms. A very popular teacher, he was idolized by his pupils who followed his clinics in enthusiastic throngs. As an operator he was unaffected, elegant, rapid, but not hurried, thorough, masterful. George James Guthrie was the leading English military surgeon of the time. He had served in America and in the Napoleonic wars. At Waterloo, Guthrie successfully amputated at the hip joint the leg of a wounded Frenchman. His treatise on gun-shot wounds requiring amputation was the standard work on the subject. Anthony White excised the head of the femur for hip disease in 1822.

The Resurrectionists.

During the latter part of the eighteenth and the first part of the nineteenth century two of the chief

terrors that "walked by night" were the press-gang and the resurrectionists—the body-snatchers of the living and the body-snatchers of the dead. The former, however, does not concern us here. Body-snatching during this period was a recognized and lucrative, if disreputable and secret, method of earning a living. The trade was as exciting as smuggling and evoked as little reprobation and, of course, it was only engaged in as a means of livelihood by the lowest of the low. Ever since the sixteenth century, the supply of bodies for anatomy had caused difficulties. With the exception of two or three old grants to the universities, there was no legal source whence human bodies could be obtained. An Act of 1752, indeed, granted the bodies of actual murderers to surgeons and at times the bodies of unclaimed persons dying in hospitals were dissected. Here and there the surgeons claimed this as a customary right, but the demand was so great and urgent that a trade grew up with numbers of ruffians, who exhumed recently interred bodies and sold them to anatomists. The knowledge and dread of this spread through the country and people began to fence in the graves of their dead with massive iron cages, which may still be seen in Grayfriars churchyard in Edinburgh and other places, and to have watchers. Watching thus developed into a profession, the members of which were not always above suspicion. And so it came about that the sacred dead of no one could be said to be exempt from the anatomist's scalpel.

Sir Astley Cooper, who dissected every day, even when travelling, and who had frequent dealings with body-snatchers, once stated before a House of Commons committee that: "There was no person, whatever his worldly place, whom he could not dissect if he would." It was bad enough to have the graves of the dead desecrated by these ghouls, but when a sufficient number of dead bodies was not forthcoming, they resorted to murder to keep up the supply. Of all the body-snatchers whose names are written on the Scroll of Infamy, those of Burke and Hare stand unrivalled. These two degraded, bestial ruffians, of low mentality, lived in Tanner's Close in the West Port, a slum district of Edinburgh, and, assisted by equally degraded female consorts, murdered people to keep up the supply of subjects for dissection. They sold the bodies to the anatomists, chiefly, if not solely, to Dr. Knox, of Edinburgh, who asked no questions. Their method was to intoxicate the victim thoroughly with inferior spirit and then to suffocate him or her by lying or sitting on the body and placing their hands over the unfortunate's mouth and nose. Cosmopolitan in their selection, they saw "a shot for the doctor" in everyone who came within the range of their influence. Burke confessed to have murdered thirty-three people within the space of twelve months. He and Hare would have escaped detection and their list would have been very much greater had they confined their operations to those waifs and strays who floated about the Grass Market and its adjacent quarters, who were owned by no one and who were here to-day and away to-

morrow. The brutal murders of the young (she was only eighteen years old), handsome and superbly modelled Mary Paterson, the unfortunate Daft Jamie and the old hag whose body was found either in their rooms or in the anatomical room of Dr. Knox, led to their undoing. They were arrested, charged with murder and put on their trial. A difficulty, however, arose. It was practically impossible, even after a *post mortem* examination had been made on the body of the old woman, for the experts to say or swear that this "old body" did not die of suffocation after a drinking bout and so of natural causes. But there was a way out of the difficulty and it was soon forthcoming—Hare turned King's evidence! Burke and his paramour, Helen Macdougall, became the "pennels." A lengthy trial followed; Helen escaped with her life, but Burke was found guilty, was publicly executed and afterwards was dissected by Professor Monro, of the Edinburgh University.

So great was the horror at the revolting details that came out in the trial and so great the delight that this murder-gang was broken up that the people thronged to witness the execution and many paid large sums for choice seats. Sir Walter Scott was one of the very willing spectators at this execution. Burke's skeleton to-day stands or is suspended in a case in the Anatomical Museum of the University. Whatever evil Burke did in his life, his name will remain as long as the English tongue is spoken, as he has enriched our language by adding one word to the dictionary. Is it not a part of parliamentary procedure occasionally to "Burke the question"? It is of more than passing interest to know that Sir Robert Christison, Bart., the teacher of many of the Edinburgh medical men practising in Australia to-day, was one of the chief witnesses in the trial of Burke and Hare.

One good reform was the result of all this miserable business, the passing of Lord Warburton's *Anatomy Act* of 1832, which provided that all unclaimed bodies should, under proper conditions, go to the medical schools.

Dr. Robert Knox, one of the chief actors in the Burke and Hare drama, was a striking personality. He had been in the army, had suffered from small-pox, which had disfigured him for life, had lost an eye and was altogether so plain looking as to be even remarkable. A student from the rival shop—the University—once met him in the street with this salutation: "By jove, Dr. Knox, you are the ugliest man I have ever seen in all my life." Knox patted him on the shoulder and made reply: "Ah! laddie, then you cannot have seen my brother Fred." Fred, by the way, was not at all bad looking. Knox was said to have descended from John Knox, the Reformer, but, unlike his ancestor, he was one of those who "feared not God, nor regarded man." He had a tongue and pen as keen as his sharpest scalpel and very few of his contemporaries were free from his attacks; but he was revered by his pupils, who regarded him as a king who could do no wrong. He was the successor to the celebrated

Barclay and had probably the biggest anatomy school in all Scotland. In his prime he had about four hundred students. He was the ablest supporter in Great Britain of the ideas of Bichat, the creator of descriptive anatomy, and was the first to teach general anatomy from the descriptive, histological and comparative angles. He attracted Edinburgh students in great numbers by his dramatic style of delivery and his showy appearance (he was something of a fop) in the lecture room. His style of teaching was easy, free and conversational—a great contrast to the dry, stiff, formal manner of the Monros, whose anatomical star was on the wane. Indeed, it was said of Monro *tertius* that he was in the habit of delivering the lectures of Monro *primus* to his students and would solemnly, much to the amusement of the grinning class, begin a course of lectures in this fashion: "When I was a student in Leyden in the year 1716." Knox was an able and interesting lecturer on artistic anatomy, natural history and anthropology. After the Burke and Hare disclosures (it was said by some that he was an accessory after the fact), Knox became the most execrated man in Edinburgh. He certainly kept his school open in Surgeons' Square for a few more years with a dwindling number of students, but finally he disappeared, a broken man, from the city which at one time greeted him with hosannas, but now cried: "Away with this fellow!" Knox lived the psalmist's allotted span of life and after many vicissitudes died at length in obscurity and penury near London in 1862.

Can any of the sons of men explain how it comes about that just a trifle sometimes alters the whole future of an individual, a group of individuals, a community or a whole nation? What a trifle it was that set the whole world ablaze in recent years. "Behold how great a matter a little fire kindleth." It was just a trifle that ultimately led to the passing of the *Anatomy Act*. It fell in this wise. Hare kept a boarding-house in Tanner's Close in the West Port, outside the city boundary, and in November, 1827, to be precise it was on the twenty-ninth day of the month, Donald, an old pensioner, died in debt, owing his landlord £4. Hare thus found himself in possession of the body of his debtor and, to recoup himself, he decided to sell the corpse to the doctors. With the cooperation of Burke, he was carrying old Donald to the University when he inquired of a young man whom he met on the road where he could find Professor Monro. This young man, a student of Dr. Knox, guessing what the parcel contained, invited him to interview his chief. Accordingly Hare turned his steps to No. 10, Surgeons' Square, where he covenanted with the man in charge of the Anatomy Room (it may have been William Ferguson, later on Sir William, or an attendant named Paterson) for the sum of £7 10s., which, for the moment, seemed a small fortune. The transaction was mutually satisfactory and, before leaving the house, Hare was invited "to bring along as many more such goods as he desired, as there was always a ready market for them at Surgeons' Square." On the way home the notion occurred either to him or

his associate Burke, how easy it would be to press the life out of some of the jetsam and flotsam who came and went about the Grass Market and who were without friends to make inquiries after them or mourn their loss. Thus the unholy alliance and the awful career of Burke and Hare began! Had these wretches reached the University, their original destination, who knows that it would not have been the career of Monro rather than that of Robert Knox that would have been blasted—just a trifle!—who knows? Just a trifle wrecked the future of Knox, brought about the execution of Burke and led to the passing of the *Anatomy Act*. Many of the medical students of the earlier years of the nineteenth and the later years of the preceding century who afterwards achieved fame, were either well known resurrectionists themselves or had dealings with the professional body-snatcher. Many a tale of stirring adventure is associated with the name of brilliant Robert Liston, who, by the way, was, I believe, a cousin of James Syme.

Here is a typical Liston story. When Liston was a medical student, he heard from a country doctor of an interesting case in which a *post mortem* examination was deemed desirable in the interests of science. He and some other students, all dressed as sailors, repaired by boat to the place appointed, where they were met by the surgeon's apprentice. Their expedition was entirely successful, thanks to the surgeon and his apprentice, who had attended meticulously to every detail. On their way back, the students called at a small change-house for refreshments, leaving the sack containing their goods under a neighbouring hedge. They were having a jolly time carousing and chaffing the country lass who was in charge, when a loud shout of "Ship, ahoy!" startled them and a drunken sailor staggered into the room with their sack on his shoulders. Pitching it on the ground he said, as he proceeded to open it with a knife: "Let us see what it contains; it must be something good or damn those chaps who stole it." The sight of the contents wrought a sudden change; the girl fled through the doorway with hysterical screams and the sailor, sobered instantly, quickly followed. Liston, who was a man of giant strength, seized the body and, with his companions, hurried for the boat, which was rowed without further interruption back to Edinburgh.

Liston was a demonstrator to Barclay and taught anatomy before engaging in surgery. It is said that, through his influence, Syme took up a medical career. He was a surgeon at the Royal Infirmary, Edinburgh, and great was his fame as a brilliant and successful operator. His great strength was demonstrated in his amputations of the thigh. He used to do this operation single handed, compress the artery with his left hand (no tourniquet) and do all the cutting and sawing with his right, with only the assistance of the house surgeon, who held the limb and tied the ligatures on the arteries. He could follow this method without effort. He excelled in emergency cases which called for swiftness of decision and originality of procedure. Once in

his youth, when assisting Mr. Russell, the then Professor of Clinical Surgery, at an amputation of the thigh, an artery in the cut bone bled violently and, in consequence of its osseous surroundings, could not be secured. Liston, with the amputation knife, at once cut a chip of wood off the operating table, formed it into a cone and drove it into the bleeding orifice and in this way immediately arrested the hæmorrhage.

In 1835 Liston was offered and accepted the Chair of Clinical Surgery in the University College, London. Like Sir Astley Cooper, he was a fine anatomist, keeping up his dissections all his life. His plastic operations were masterpieces, showing great artistic sense and manipulative dexterity. He was a man of but few words; these, however, were always to the point and his remarks after an operation were clear and apposite. Rough, abrupt and contentious in his public relations, Liston was kind to the poor and gentleness itself in the sick room. He died rather suddenly in 1847 from the pressure of an aneurysm of the aorta against the trachea.

James Syme was younger than Liston by five years. He was born at 56, Princes Street, Edinburgh, on November 7, 1799, and was descended from two families of wealth and position. Syme was a student for a time at Barclay's School, when Liston was demonstrator, but when the latter had a disagreement with Barclay and began teaching anatomy on his own account, he went with him as assistant. Syme at first taught anatomy, but found great difficulty in procuring subjects. The men who conducted this traffic, says his biographer, were of the most degraded kind, requiring to be stimulated by *douceurs* and loans and daily becoming more and more exacting in their demands. Syme became disgusted and went to Dublin for the purpose of securing a more steady supply of subjects for his rooms, independent of the Edinburgh body-snatchers. He returned home inspired by the work of some of the Dublin surgeons and resolved to renounce as soon as possible the teaching of anatomy and to specialize in surgery. When he started as a surgeon, an estrangement which at last developed into an open quarrel between him and Liston, began to take form, chiefly, I think, owing to Liston's jealousy of Syme's ability. When Syme applied for a position on the surgical side of the Royal Infirmary, he was not successful, as Liston had considerable influence at that time with the governors of the institution and he used this against Syme's appointment. Syme then started a surgical hospital at "Minto House," which he conducted successfully for a number of years, till he was appointed Professor of Clinical Surgery at the University in 1833. While at "Minto House" a case of gun-shot wound of the hand was treated, from which he deduced results that have influenced the practice of surgery ever since. "The fact," says Syme, "that torn arteries bleed little or none at all, has not yet been satisfactorily accounted for. The truth seems to be that when an artery is stretched, the internal and middle coats give way before the tough cellular envelope, which, when at last it yields

also, collapses about the other in a conical form. Trials on the dead subject suggested and have repeatedly confirmed this opinion, which agreed with the appearances observed in the hand under consideration, where the orifices of the blood vessels could not be discovered without difficulty, though they were of considerable size." At the University he was a popular and successful teacher; his training essentially fitted him for the position. He was at first an anatomist and then a surgeon and this fact enabled him to undertake and bring to a successful issue with the dexterity of a craftsman operations at the root of the neck and in other equally dangerous situations. At one time he commanded the largest class ever taught in the Medical School of Edinburgh. Syme's most important contribution to surgery is his work on "Amputations and Excisions." In his book, "Excisions of Diseased Joints" (1831), he was the first to show that excision is usually preferable to amputation. He was broadminded, welcoming all surgical innovations of value. The introduction of anaesthetics into practice did not at first meet with his approval, but he soon yielded to a belief in their efficacy, especially after the introduction of chloroform, and he was the first to welcome the antiseptic method of Lister, his son-in-law.

The reconciliation between him and Liston took place at the end of the year 1839. This gave him great joy, as he always had a lingering fondness for his great rival, which even the harsh and contemptuous attitude of the latter could not remove. After Liston's death he was invited to London to take his place, but he did not remain long in the southern capital and was pleased to return once more to the friendly atmosphere of Edinburgh, where he resumed his old appointment. He died on Sunday, June 26, 1870. Cerebral hæmorrhage was the cause of his death. He found surgery in many respects unworthy of its position, whether as a science or an art; he left it both scientifically and practically corrected and improved. Few could convey their sentiments in a smaller number of words than Syme, of whom it was well said by a celebrated advocate that "he never wasted a word, nor a drop of ink, nor a drop of blood."

Syme in his student days made an important discovery in chemistry, which, had he taken advantage of it in a practical way, might have brought him a considerable fortune. On March 5, 1818, he announced to the world in a short communication sent to the editor of the *Annals of Philosophy*, the discovery of a new and cheap solvent for caoutchouc, distilled from coal tar. He constructed flexible tubes of the substance, caoutchouc, itself and rendered various textures waterproof by brushing a thin layer of the solution into their interstices. His friends advised him to patent the substance, but he thought it *infra dignitatem* to have anything to do with trade, so he did not follow up their advice. A patent was, however, taken out by a man named Macintosh, a manufacturer in Glasgow. This was the genesis of the Macintosh water-

proof clothing. Syme himself, referring to the matter at a later period, said: "For my own part, I gained little credit and no profit by the discovery."

William Ferguson, afterwards Sir William Ferguson, President of the Royal College of Surgeons of England, was a pupil and prosecutor of Dr. Robert Knox and had much to do with the Burke and Hare affair. He was the founder of conservative surgery and saved limbs which would have been amputated by surgeons of a former period. He had great success in operations for cleft palate and hare lip. The speed and certainty of his work were remarkable. In lithotomy he proceeded with lightning speed. Some one advised a prospective visitor to his clinic to: "Look out sharp; if you but wink, you will miss the operation altogether." Once when operating on a deep seated tumour of the neck, he cut an artery which gave forth an enormous quantity of blood; an assistant stopped the bleeding with his finger. "Just get your finger out of the way," said Ferguson, "and let us see what it is"; and then with the velocity of light he had the artery clamped and tied. A man afflicted with a tumour and being perplexed as to the operation and operator, once said: "When Ferguson put his hand on my jaw to examine me, I felt that he was the man who should do the operation, the contrast between his examination and that of others was so great." Ferguson was very dexterous, a good musician, carpenter and metal worker and he could dance a Scotch reel with anyone. He died in 1877. He was born at Prestonpans, in Scotland, in 1808, the same year as Richard Harris, and died ten years before him, aged sixty-nine years.

It is not generally known that Charles Robert Darwin was intended for the medical profession. He says autobiographically: "As I was doing no good at school, my father sent me to the Edinburgh University (October, 1825) with my brother, where I stayed for two years or sessions. My brother was completing his medical studies and I was sent there to commence mine. The instruction at Edinburgh was altogether by lectures and these were intolerably dull, with the exception of those on chemistry by Hope. Dr. Duncan's lectures on *materia medica* at 8 a.m. on a winter's morning are something fearful to remember. Dr. Monro made his lectures on human anatomy as dull as he was himself and subject disgusted me." Darwin was disgusted with anatomy, dissections, the method of obtaining bodies and operations and so he left the University. His sense of humour or the want of it prevented him from seeing any fun in Monro *tertius*.

Richard Harris lived at this period and was an anatomical enthusiast. He was a student at a time when to learn anatomy at all thoroughly, one had to be a resurrectionist oneself or obtain material from those ghouls who then flourished all over the Kingdom. I have it on credible authority that in the matter of "getting a body" Richard Harris was not altogether above suspicion. So much, then, for the resurrectionists and a few of the men who rose to fame during the period when body-snatching reigned supreme.

ECHINOCOCCUS MULTILOCLULARIS: WHAT IS MEANT BY THIS TERM?

By I. CLUNIES ROSS, B.V.Sc.

Walter and Eliza Hall, Veterinary Research Fellow,
University of Sydney.

THE object of this note is not to add anything new to the discussion of whether *Echinococcus multilocularis* does or does not occur in Australia or whether the adult *cystodes* giving rise in their larval state to the unilocular and multilocular hydatid cysts should be considered as specifically distinct. It is prompted by the apparent confusion of opinion that exists in regard to this condition as shown by the authors of many modern parasitological textbooks, which serves to confuse the students of helminthology.

In the majority of parasitological works reference is made to echinococcus disease under two headings: (a) *Echinococcus granulosus* and (b) *Echinococcus multilocularis*. These two parasites are separated, as a rule, upon the characteristics presented by their larval forms, thus *Echinococcus granulosus* gives rise to the common unilocular hydatid cyst of man and the domesticated animals, while *Echinococcus multilocularis* is described as a condition, first recognized by Virchow in 1855, as being of a hydatid nature before which it was considered to be alveolar colloid cancer. On section it presents a number of small and irregular cavities, sometimes intercommunicating and enclosed in a fibrous stroma, the cyst being usually sterile. Generally no reference is made to any known difference between the adult worms *Echinococcus granulosus* and *Echinococcus multilocularis*, the two species being separated solely on the characteristics of their larval forms. One wonders sometimes whether the helminthological significance of the specific names *granulosus* and *multilocularis* is recognized or whether they are used merely as a convenient method of differentiating two pathological conditions.

In regard to *Echinococcus multilocularis*, it is stated in many text books of parasitology and tropical medicine to be a very rare and serious condition confined within narrow geographical boundaries and what is more remarkable to be unknown in those countries, where echinococcus disease is most common, *id est* in Australia and Iceland.

Thus in "A System of Tropical Medicine" by Castellani (1913), we read under the heading of *Echinococcus multilocularis*: "the geographical distribution is interesting, it being mostly found in Germany, Switzerland and the Austrian Alpine region and Eastern Siberia and occurs in cattle and man, whereas it is absent from Australia and Iceland and those European districts where sheep are common and the other form is frequently met with." In "Animal Parasites and Human Disease" by Chandler (1918) it is stated that: "instead of forming large vesicles the growth results in the formation of a great mass of small separate vesicles, varying in size from a pinhead to a pea with few and scattered heads. These masses of vesicles are known as multilocular cysts. The fact that multilocular cysts are not found in Iceland and Australia

where the ordinary cysts are so common and that they occur to the almost total exclusion of the ordinary hydatid in certain parts, especially Germany, suggest that they belong to a different species from *Echinococcus granulosus*." Again in "Parasites" by Rivas (1920) the following appears: "Multilocular hydatid cyst is believed to be caused by *Echinococcus multilocularis*, a parasite resembling *Echinococcus granulosus*, but distinguished from it by the peculiar formation of various cysts or chambers that usually communicate with each other. . . . Thus *Echinococcus multilocularis* is more common in South Germany, Switzerland, Austrian Alpine region and Russia, and is absent in Iceland and Australia. It is also said to be common in South America and the Argentine." In Mason's "Tropical Diseases" (1921) no mention is made of *Echinococcus multilocularis*. In an abstract of "Echinococcus Disease" by Davies and Baldoni, appearing in *The Journal of Tropical Medicine and Hygiene* (1917) we find it stated that the disease exists in two forms, *Echinococcus unilocularis* and the rarer form *Echinococcus multilocularis vel alveolaris* and that *Echinococcus multilocularis* has never existed in Australia in man or beast nor in the Argentine or Uruguay.

As this statement is repeated so frequently, it might be expected that it would be accepted as correct without question, but on consulting the work of Australian writers on this subject we find appearing in 1906, a thesis by Ramsay Smith on *Echinococcus multilocularis* which would appear to present a definite proof that the condition was of common occurrence in Australia. Early in this thesis Ramsay Smith states that the total number of multilocular hydatid cysts previously reported throughout the world, from man and the lower animals is under one hundred, while "the number I have myself collected is somewhat over one thousand." In conclusion he says: "Every form of multilocular hydatid described is found in Australia and may occur in large numbers from certain localities. The common forms occur in all parts of the lungs and liver and consist of a number of 'graded' loculi communicating with one another and varying in size from one to ten millimetres in diameter, with octo- and endocyst continuous throughout the loculi, the small loculi being barren, the large fertile and all being enclosed in a common adventitious fibrous capsule which with the contained cyst forms a tumour that can fairly easily be shelled out of the organ in which it is found. A typical *Echinococcus multilocularis* is multilocular from its earliest recognizable cystic stage and cannot in the present state of our knowledge be called merely a sport or variety of any form of hydatid." He does not mention whether the loculi contained ordinary hydatid liquid or jelly-like material, except in one case he records from a lion in which both were found in different loculi. One case is also recorded from man, but is not dealt with in detail. The size of the loculi is given as most commonly varying between one and ten millimetres, but in some of the illustrations, of which there are many, loculi of

several centimetres in size are shown. He concludes by saying that in sheep in which multilocular echinococcus was found, no unilocular cysts were seen and thus the question arises whether one should look for a different adult tænia in the two conditions. It should also be noted that Ramsay Smith definitely states that these multilocular cysts were not prone to either suppurative or degeneration and in only two cases out of the whole series was there any question of suppuration and there was doubt whether those were really hydatid cysts at all.

After having read this work I began to wonder whether it is possible that subsequent writers of works on parasitology could have been completely ignorant of this hitherto rare and confined condition and of its apparent record of the common occurrence in Australia both in man and the domestic animals. All have been apparently referring to the same condition, namely *Echinococcus multilocularis*.

It is on turning to the work of French writers especially of that eminent authority, Professor Dévé that I began to see how this confusion has arisen. Dévé in 1912 deals at some length with the multilocular echinococcus occurring in man. At the beginning of his treatise he discusses the desirability of arriving at a suitable name for this rare condition and says that he is forced to reject the name *Echinococcus multilocularis* which, has been and is still the origin of much confusion, the literature being full of observations of multilocular cysts having nothing in common with the true alveolar echinococcus of man. He had suggested the name *Echinococcus bavaro-tyrolienne* on account of the geographical distribution of this form, but decides that this is unsatisfactory and finally selects the designation *Echinococcus alveolaris*. A short description follows of the characteristics presented by the true alveolar echinococcus from which the following might be quoted:

Innombrables, irrégulières et minuscules cavités alvéolaires, contenant une substance gélatineuse, creusées dans un bloc dense, dans un tissu fondamental dur, fibroïde, souvent plus ou moins calcifié de couleur jaune verdâtre, grisâtre ou blanchâtre. La lésion offre surtout après fixation dans l'alcool, un aspect poreux très remarquable; aspect de bois vermoulu, de pain bis, d'éponge fine. La masse parasitaire fibroïde, formée aux dépens du tissu hépatique envahi, ne présente aucun enkystement périphérique. Ses limites sont irrégulières et incertaines.

The small size of the vesicles is mentioned; they are very rarely larger than a pea or a cherry stone and in consequence there is practically no hydatid fluid. Another important diagnostic feature given is that while there is progressive peripheral extension of the lesion, there is concurrently progressive necrosis and degeneration at the centre. Special importance is given to the malignant infiltrating method of extension with its liability to give rise to secondary metastatic growths, which always give rise to an alveolar form exactly similar to the primary growth. Dévé then proceeds to discuss the *Echinococcus multilocularis* of the domesti-

cated animals, which has been recorded from many parts where the true *Echinococcus alveolaris* is unknown, for example in England, Italy and the Argentine, and whether it is identical with the human form. In 1905 he expressed the opinion that the two forms were in no way similar to one another, basing his opinion on the following characteristics:

Dans l'échinococcose multiloculaire bovine, la charpente fibroïde ordonnée avec une certaine régularité limite des cavités relativement larges, communiquant généralement entre elles par un ou deux orifices étroits. La masse gélatineuse qui comble des cavités, et qui s'en enucle facilement se montre constituée par de larges et minces membranes hydatiques plissées, chiffonnées. Aspect totalement différent de ce qu'on observe dans l'échinococcose alvéolaire humaine.

What is most particularly emphasized is that in the multilocular echinococcus of the domesticated animals central necrosis is never seen, while even where there is no fibrous capsule, there is no tendency to infiltration or metastasis by way of the lymph or blood stream. In short, the growth in animals is essentially benign, while that in man resembles a malignant neoplasm. It is noted that in sheep a form frequently occurs, which on section appears multilocular, but which is really due to the formation of diverticula from a single central hydatid vesicle.

In 1905 after examining several infections with *Echinococcus alveolaris* and having compared them with other multilocular forms (pseudo-alveolar, hydatids of bone and multilocular forms from the domesticated animals) Dévé made the following pronouncement on some disputed characteristics in regard to this condition.

(i) The sterility of the cysts was not as distinct as had been previously thought, in five out of six cases scolices were present and in two of these they were abundant.

(ii) The number of hooks ranged from twenty-eight to thirty-four instead of from thirty-two to thirty-eight as in the ordinary *Echinococcus scolex*. Dévé mentions, however, that other observers had counted more hooks than this.

(iii) Melnikof-Raswedenkof, an adherent of the two parasite theory, had declared that the characteristic structure of the alveolar echinococcus was due to the production of embryonic elements, endowed with amœboid movement, which penetrated into the surrounding host tissues. Dévé admits that these finely granular protoplasmic structures are present, but places a different interpretation on their function. He says: *Nous pensons que les formations en question sont constituées par des prolongations nus du protoplasma geminatif des vésicules alvéolaires*. These wandering branches have a delicate reticulate structure and are endowed with great vitality and toxic activity and penetrate varying distances into the host parenchyma. The cuticularization of these branches takes place only secondarily, when it delineates the innumerable little vesicular cavities characteristic of the *Echinococcus alveolaris*. It is by means of these proto-

plasmic branches that Dévé considers the malignant and infiltrating method of extension is due and he considers that this condition is found only in the alveolar echinococcus.

(iv) In regard to the difference shown by the adult worm *Echinococcus alveolaris* he says that Posselt in 1904 had by feeding experiments succeeded in obtaining the adult worm and that it presented specific differences to *Echinococcus granulosis*.

Dévé considers that the foregoing zoological characteristics tend to confirm the opinion of the duality of the echinococcus. Dévé at this time then decided that *Echinococcus alveolaris* was quite distinct from other multilocular forms of hydatid disease, such as had been reported from England, the Argentine, South America and elsewhere, and that the only authentic cases had come from a confined area in Europe, Bavaria, the Tyrol, Wurtemberg, Switzerland and Russia.

While it may be considered that this definition is very narrow and rigid, it must be remembered that Dévé had had opportunity of examining a large number of cases of *Echinococcus alveolaris* coming from the classical region and of comparing them both macroscopically and microscopically with other multilocular forms.

While in 1912 Dévé is not so decided as he was in 1905 that the two forms in man and the domesticated animals have nothing in common, yet he still maintains that the *Echinococcus alveolaris* of man presents certain well defined constant and definite characters that leave no doubt as to the specificity of the lesion. Having read Dévé's work (and it may be mentioned that his opinion appears to be generally accepted by French parasitologists, both human and veterinary), I am again confronted with the opinions expressed in the English parasitological works mentioned above and in the work of Ramsay Smith. What do they mean by *Echinococcus multilocularis*?

It is apparent that the lesions described by Ramsay Smith with their regular structure, fibrous encapsulation, large loculi and the absence of necrosis and degeneration are not the rare *Echinococcose alvéolaire* of Dévé, but are apparently the *Echinococcus multilocularis* of the domestic animals, though Ramsay Smith evidently thought he was dealing with the former condition, since he says less than one hundred cases had been recorded from all parts of the world.

In 1920 in THE MEDICAL JOURNAL OF AUSTRALIA there appears another Australian article on this subject by Corlette, in which he not only records a case of hydatid disease of bone, together with a multilocular hydatid formation in the lung, but also deals exhaustively with the relationship of hydatid disease of bone and of the peritoneum to other multilocular forms and discusses the theory of the specificity of *Echinococcus granulosis* and *Echinococcus multilocularis*. Corlette considers that the hydatid of the lung in his case was "un-

questionably and unequivocally nothing less than a multilocular hydatid of the lung." The whole of the apical part of the lung in question presented a marbled appearance, giving an impression of a series of small hydatid cysts lodged beneath the pleural surface. At the lower margin another hydatid mass was seen which on section was found to contain a densely packed mass of crumpled looking hydatid membrane, cutting like solid jelly and with no free fluid being present, and no scolices being detected. He mentions that there was no evidence of violent toxic tissue reaction described in connexion with *Echinococcus multilocularis* (alveolaris) by other authorities and also that very similar appearances to those shown in this case had been described in the lungs of sheep by Ramsay Smith. Corlette then advances a theory that the characteristic formation of a bone hydatid may be due to the bursting of one of the primary hydatid cysts in the bone, with the liberation of brood capsules and free scolices, these and the primary elements producing decalcification and degeneration with formation and fusion of adjacent loculi. He then suggests that the lung lesions in his case were secondary to those in the bone and were due to embolic seeding of the lung with embryonic hydatids or tiny cysts liberated from the pre-existing condition of the bone.

It will thus be seen that he suggests that hydatid disease of bone and what he considers to be multilocular (alveolar) disease of the lung are nothing less than variations of the ordinary hydatid due to their particular environment and method of growth.

Corlette then proceeds to discuss the various arguments put forward in support of the theory of the duality of the echinococcus. He says that in his case there occurred both a hydatid disease of bone and a "multilocular (alveolar)" hydatid formation, both such exceedingly rare conditions that the mathematical probability of their occurring in one and the same person, if due to separate parasites, would be so slight as to be practically negligible. While this would be so if this multilocular formation in the lung be accepted as being the extremely rare condition designated by Dévé, *échinococcose alvéolaire humaine*, it may be questioned whether Dévé would accept it as such.

Corlette also considers that the finding by Ramsay Smith of great numbers of multilocular hydatids in sheep and cattle in Australia, while only the unilocular form was reported in man, would also lend support to the theory that there was only one parasite concerned and that the multilocular forms are variations of the ordinary cystic type. Otherwise one would expect to get multilocular forms occurring more or less in man in Australia. We have seen, however, that Ramsay Smith's cases were not what he thought them to be, the rare and confined *Echinococcus alveolaris* and that similar cases had been reported from a variety of countries, England, Argentine and other countries.

Corlette finally points out the desirability of arriving at a logical definition of what is meant by

"multilocular hydatids" and whether multiple hydatids of the peritoneum should not be included under this heading.

As he has pointed out, if it is considered that the peculiarities of hydatid disease of bone and multilocular hydatid of the liver and lung are due not to any fundamental difference, but rather to conditions of environment, it is possible that in multiple hydatid of the peritoneum differences to the above forms also may be due only to environment.

It will thus be seen that Corlette inclines to the opposite extreme to Dévé, or at least Dévé in 1912. Recently Dévé discusses afresh this whole question of the relationship of *échinococcose alvéolaire humaine* to *Echinococcus multilocularis* of domesticated animals.⁽¹⁾ I cannot say whether he has altered his opinions, as I have not had access to his latest article.

It may be mentioned here, however, that one great objection to Dévé's theory as to the distinctive nature of *Echinococcus alveolaris* and his opinion that it is not related to any form in the domesticated animals is that he makes it very hard to find how the parasite can continue in these days to be propagated. If it only occurs in human beings, the only way its life cycle can be continued is through the ingestion of infected organs by man eating carnivora. It must be admitted that in Bavaria and the Austrian Tyrol the existence of the parasite would be most precarious to say the least of it. Others might argue that this accounted for the extreme rarity of the condition.

It is interesting to consider the statements of the authors previously quoted. What do they mean by *Echinococcus multilocularis*? Do they incline with Corlette to the opinion that the term should include the several multilocular forms of man and the domestic animals, or do they wish to restrict their statement to what Dévé considers a quite distinctive human type, the *Echinococcus alveolaris*?

Since Castellani says that the condition occurs in man and cattle, he apparently includes *Echinococcus multilocularis* of bovines, as well as of the human type. If so, his statement that the condition does not occur in Australia is incorrect, for several of Ramsay Smith's infections were from cattle. Chandler and Rivas would, perhaps, desire to restrict the term to the distinctive human type in which case their use of the term *Echinococcus multilocularis*, without any reference to multilocular forms in domesticated animals, is unfortunate, since other forms having a multilocular structure will always be confused with the human type, unless specifically differentiated.

In "The Animal Parasites of Man," Fontham, Stevens and Theobald (1916), when dealing with multilocular echinococcus make no mention of its presence or absence in Australia, but the two forms are not differentiated except that it is mentioned that degeneration is said not to occur in that of animals. . . . "As to the domesticated animals the same parasite is found principally in oxen and is rarer in the sheep and pig."

In contrast to the careless way this condition is dealt with in parasitological works published in English, in French works on both human and veterinary parasitology attention is drawn to the necessity of differentiating the rare and geographically confined *Echinococcus alveolaris* from the common and widely distributed *Echinococcus multilocularis* of animals and mention is made of the possible confusion that may arise between the two conditions. Recently Mouquet⁽²⁾ states that the term multilocular echinococcus has been applied to five different conditions: (a) *l'échinococcose alvéolaire humaine*, (b) *l'échinococcose osseuse humaine*, (c) *l'échinococcose multiloculaire des animaux*, (d) *l'échinococcose ordinaire, à kyste pluriloculaire et par conséquent multivésiculaire*, (e) *l'échinococcose uniloculaire multivésiculaire*. It is to be hoped that in future writers will, if they agree that the two types are quite distinct, reserve for the apparently distinctive human type the term *Echinococcus alveolaris*, while if on the other hand they consider that the multilocular forms in man and the domesticated animals are merely variations of each other, they will at least give some indication of their attitude, in which case by including both forms under the terms *Echinococcus multilocularis*, they will have no right to assert that the condition is either rare or unknown in Australia. Yet another system of terminology is that employed by Brumpt⁽³⁾ in which, while accepting Dévé's views, he calls the human type *Echinococcus multilocularis*, while classing the form in domesticated animals as pseudo-multilocular. This appears to me to complicate the matter still further.

While it seems unlikely that there will ever be uniformity of opinion as to the duality or otherwise of the echinococcus, there is no reason why much of the confusion existing for the student in regard to this condition should not be done away with by some explanation of the situation as it exists to-day.

References.

- ⁽¹⁾ Dévé, F.: *Annales de la Faculté de Médecine de Montevideo*, 1920, page 129.
- ⁽²⁾ Mouquet, A.: *Bulletin de la Société Centrale de Médecine Vétérinaire*, 1919, page 370.
- ⁽³⁾ Brumpt, E.: "Précis de Parasitologie," 1921.

Reports of Cases.

A CASE OF SARCOMA OF THE MESENTERY.

SUCCESSFUL REMOVAL INVOLVING RESECTION OF THE ASCENDING COLON AND 237.5 CENTIMETRES OF THE ILEUM WITH PATHOLOGICAL REPORT.

By GEORGE BELL, O.B.E., M.B., CH.M. (SYDNEY).
Honorary Surgeon, Sydney Hospital; Visiting Surgeon,
Prince of Wales Hospital.

SARCOMATA or in fact all solid tumours of the mesentery of the connective tissue type form a group interesting both to the clinician and to the pathologist.

Bland Sutton⁽¹⁾ emphasizes the importance of careful microscopical examination of all solid tumours of the

mesentery. The rate of growth varies and the tumour may be noticed by the patient for periods varying from a few weeks to fifteen years.⁽²⁾ They are stated as a rule to cause pain, but may develop painlessly. In their later stages they cause compression.

The diagnosis of these tumours is difficult, more particularly in the female, where they are likely to be confused with tumours of the uterus and ovary. Douglas⁽³⁾ advises percussion in the Trendelenberg position as a means of excluding tumours of these organs.

Surgical treatment offers the best hope, although it may involve extensive resections of intestine and the operative mortality is apparently high. Greer quotes statistics giving operative death rates varying from 22% to 52%. Removal of the growth may be contra-indicated by the poor general condition of the patient or at the time of operation by extensive infiltration by the growth of the surrounding tissues.

The two principal methods of removal at our disposal are enucleation and excision of the growth when it has a pedicle. Either of these procedures may necessitate the removal of intestine of which the blood supply has been injured. It is of great importance in these cases to remove all intestine of which the blood supply is impaired and to anastomose only those portions of intestine possessing a good blood supply.

The prognosis in those patients who survive operation, would appear to be fair.

Bland Sutton mentions a case where a large globular tumour, weighing 3.6 kilograms (8 lbs.) was removed by

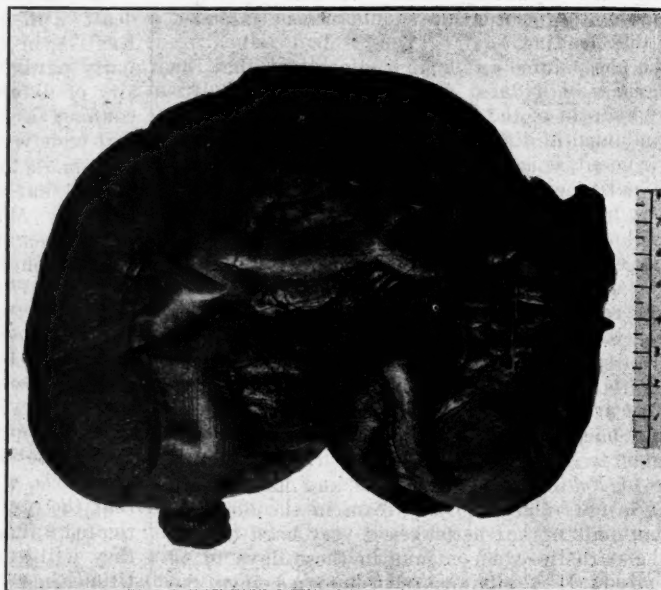


FIGURE I.
Showing the Outer Aspect of the Tumour and its Relation to the Caecum and Appendix. The ileum can be seen stretched over the tumour like a strap. (Centimetre scale.)

Shepherd in 1897, from the mesentery of a man aged 28. Two hundred and forty centimetres (eight feet) of small intestine were removed at the same time. The man was alive in 1900.

H.H., aged twenty-five, a carpenter, was admitted to the Sydney Hospital on September 7, 1922. He stated that three weeks previous to admission he had noticed a lump in his abdomen which had grown very rapidly, particularly during the last few days.

His appetite had been excellent. The bowels were well open. Micturition was normal except for slight pain and no abnormality of the urine had been noticed. Vomiting had been absent and patient did not consider that he had lost weight. He had always been healthy and denied that he had suffered from venereal disease.

Examination revealed a healthy looking man with a good colour.

A large, rounded abdominal tumour was visible, lying for the most part in the right "lower abdominal quadrant" and occupying portions of the right iliac, lumbar, umbilical and hypogastric regions and extending a short distance to the left of the middle line and above the level of the umbilicus.

On palpation it felt very hard and could only be moved slightly in a lateral direction. No fluctuation could be detected and only slight pain was experienced on pressure over the tumour.

A rectal examination was made and the tumour could just be palpated by the examining finger when pressure was made on the superior pole of the tumour in a direction downwards and towards the pelvis. The urine contained a very few pus cells, but no casts. No reaction was obtained to the Bordet test on September 7, 1922.

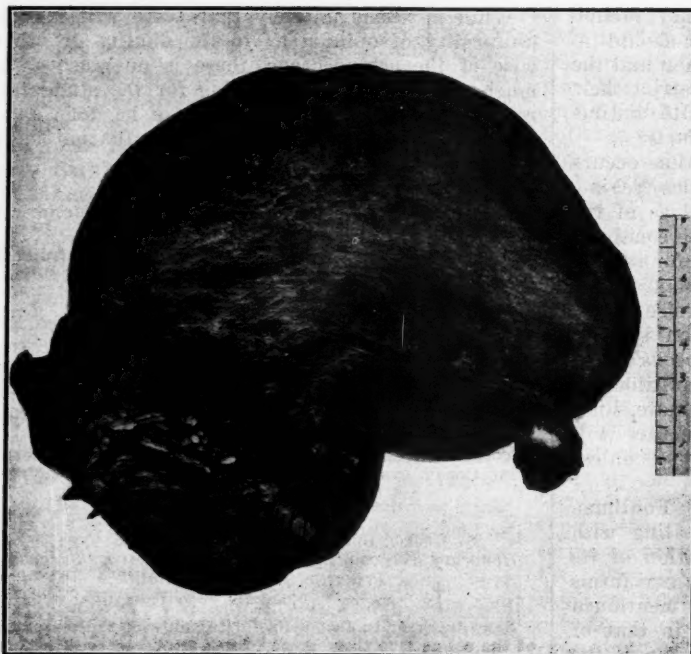


FIGURE II.
Showing the Appearance of Cut Surface of the Tumour when Sectioned Through the Middle. The projection at the right lower corner is ileum and the mass at the left lower corner is caecum. Compare Figure I. (Centimetre scale.)

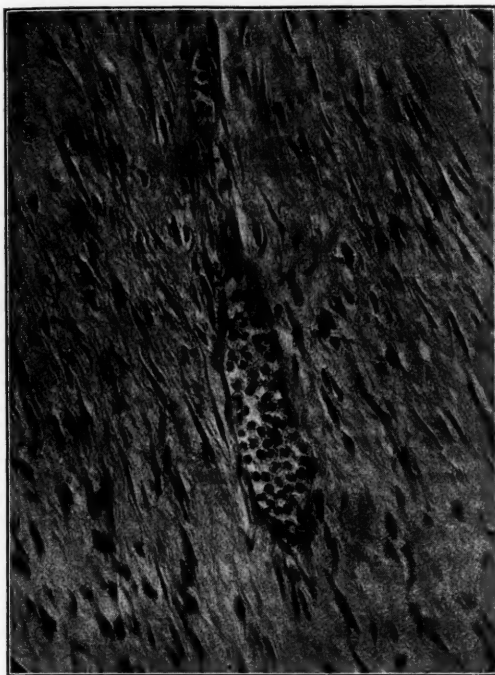


FIGURE III.
Showing a Fairly Typical Appearance. The spindle cells, with elongated nuclei, are well shown. The vessel is packed with leucocytes, mainly polymorpho-nuclear cells. The cells forming the walls of the vessel morphologically closely resemble the cells of the growth, so that the vessels look like mere clefts between groups of neoplastic cells. (x 250.)



FIGURE IV.
Showing the Angiomatous Appearance of the Blood Spaces in Some Portions of the Haemorrhagic Outer Zone of the Tumour. These spaces in many instances are filled with red blood cells and leucocytes are inconspicuous. This figure also shows red blood cells in the substance of the growth, the result of rupture of some of the thin-walled blood vessels. (x 250.)

A barium meal was given and Dr. W. Edwards reported that the stomach was displaced upwards and to the left by pressure from below. The pressure was causing some delay in the emptying time of the stomach.

The blood examination on September 11, 1922, showed:

Red blood corpuscles,
5,260,000 per cubic millimetre.

Hæmoglobin, 85%.

Colour index, 0.8.

Leucocytes, 20,000 per cubic millimetre.

Polymorpho-nuclear cells,
61%.

Small lymphocytes, 32%.

Large lymphocytes, 5%.

Transitional cells, 1%.

Eosinophile cells, 1%.

The red cells were normal in size and shape.

A diagnosis of retro-peritoneal sarcoma was made although the leucocytosis had raised the question as to whether the swelling was inflammatory in origin.

On September 11, 1922, under ether anaesthesia the peritoneal cavity was opened by an incision through the *linea alba* below the umbilicus. This incision was then

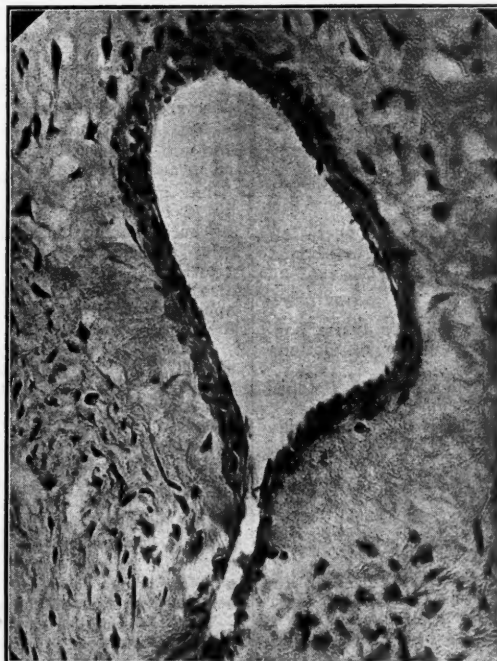


FIGURE V.
Showing the Third Type of Vessel. The apparent thickness of the vessel wall is due to a surrounding sheath of neoplastic cells. The clear zone is degenerate new growth. (x 250.)

extended a short distance above and to the left of the umbilicus. A large plum-coloured, solid tumour, measuring 17 x 13 x 12 centimetres and weighing nearly two kilograms (4 lbs. 6 ozs.) was revealed. It was situated in the distal end of the mesentery near the caecum. Moreover, the lower sixty centimetres of the ileum were wound around the tumour and flattened over it like a strap. The peritoneum covering the mesentery was tightly distended by the tumour in which hemorrhage had taken place within the past few days. Portion of the caecum and ascending colon were applied to the tumour, but were not so tightly stretched as the lower part of small intestine. The tumour was partly delivered through the abdominal incision. The transverse colon was situated at a lower level and was shorter than normal, the hepatic and splenic flexures being easily examined through the incision. Examination showed that it was impossible to remove the tumour without destroying the blood supply to the lower portion of ileum.

It was also noted at this

stage that petechial hæmorrhage readily occurred in the mesentery of the lower portion of ileum, these hæmorrhages taking place close to its point of attachment to the small gut.

The operation area was shut off from the other parts of the abdomen by means of pads. At the same time, the circulation in the small intestine for some distance above the tumour appeared to be sluggish and poor. Accordingly a lateral anastomosis was made between the transverse colon at a point somewhat to the right of its mid-point and the small intestine at the situation nearest the tumour where the circulation of the small gut was normal. The caecum, ascending colon, hepatic flexure, a small portion of the transverse colon and 237.5 centimetres (93½ inches) of ileum were excised together with the tumour, the bowel being crushed and ligatured and divided between clamps. The blind ends were buried by means of a purse-string suture, reinforced by several interrupted Lembert sutures. No clamps were used in making the anastomosis. The colon and small intestine were held in apposition by Forlier's forceps and the anastomosis made with two layers of silk sutures, one including the serous to submucous layers and the inner layer including all the layers of the large and small gut. The mesentery was clamped and divided and then ligatured with strong, plain catgut ligatures. The pads were removed and the abdominal toilet was completed. The abdominal incision was closed, plain catgut sutures being used to unite the peritoneum and aponeurosis. Sutures of relaxation of silk-worm gut were inserted through all the layers with the exception of the peritoneum. An anchored dressing was applied.

The duration of the whole operation was one hour and twenty-eight minutes. One hour after operation the pulse rate was 96 per minute and the colour of the patient was good.

On September 12, 1922, the patient retained saline solution administered by the rectum and drank about 0.6 litre (one pint) of fluid. He did not vomit. On September 13, 1922, an enema was given and a satisfactory result was obtained. On September 14, 1922, patient was drinking "egg flip." On September 16, 1922, an enema was given with good result.

On September 21, 1922, a blood count was taken. The result was as follows:

Red blood corpuscles	.. 4,620,000 per cubic mm.
Hæmoglobin	80%.
Colour index	0.9.
White blood corpuscles	.. 17,200 per cubic mm.
Poly-morpho-nuclear cells	.. 60%
Small lymphocytes	.. 23%
Large lymphocytes	.. 11%
Transitional cells	.. 2%
Eosinophile cells	.. 4%

The highest temperature recorded after the operation was 38° C. (100.4° F.) on September 12, 1922. The highest pulse-rate recorded after the operation was 108 on the second day.

The wound healed by first intention.

The patient complained of diarrhœa at times during convalescence, four being the maximum number of motions passed in twenty-four hours.

The patient was discharged from hospital on October 10, 1922, and returned to work on December 3, 1922.

When seen early in December, 1922, he had gained one kilogram in weight. He still complained of diarrhœa and stated that from November 18 to 23, 1922, the number of evacuations during twenty-four hours varied from three to seven, although he was taking a mixture containing catechu.

On January 29, 1923, the patient was working at his trade and had gained 3.5 kilograms in weight.

He stated that his appetite was excellent and that his bowels usually acted thrice during twenty-four hours, each evacuation being preceded by some abdominal pain.

As regards the diarrhœa complained of by the patient since the operation, it would appear that this occurs at times after excision of considerable lengths of intestine. Kocher,⁽¹⁾ in recording a case in which he resected 2.08

metres of small intestine, states that the patient remained well with the exception of having diarrhœa easily started by errors of diet.

Shepherd,⁽²⁾ in a résumé of thirteen cases in which lengths of intestine ranging from 3.3 metres to 80 centimetres were resected, states that diarrhœa was noticed in several cases.

Moynihan⁽³⁾ states that "the changes which have been noticed subsequent to the removal of great lengths of small intestine are fairly constant.

"The appetite is always greatly increased. Diarrhœa is a constant feature for long periods and though it can be controlled to a certain degree by careful supervision of diet, it is apt to occur on the smallest provocation. A milk diet seems particularly likely to excite irritation." In a few cases, one in which "four metres were excised and 1.25 metres remained" the diarrhœa led to gradually increasing inanition and death.

Moynihan also gives a table of fifty-four recorded cases of resection of great lengths of intestine. In one case "5.4 metres of ileum" were removed by Brenner from a woman aged sixty-one. Two and a half years after operation she died of marasmus.

In another case in which 2.3 metres of ileum and 80 centimetres of large intestine were resected by Montprofit (an amount somewhat similar to that excised in the case reported above), the patient was reported, six years after operation, to be in good general condition except for diarrhœa after eating meat.

References.

- (1) Sutton, Bland: "Tumours, Innocent and Malignant," 7th Edition, 1922.
- (2) Greer, W. J.: *The British Medical Journal*, 1911, II, page 1085.
- (3) Douglas: "Surgical Diseases of the Abdomen," Second Edition, 1909, page 728.
- (4) Quoted by Elliott: "Annals of Surgery," January, 1895.
- (5) Shepherd, F. J.: *The British Medical Journal*, 1897, II, page 966.
- (6) Moynihan, Berkeley: "Abdominal Operations," 1914, Volume I., page 458.

PATHOLOGICAL REPORT.

By KEITH INGLIS, M.D., CH.M., (SYDNEY).

Lecturer in Pathology, University of Sydney, Honorary Pathologist to the Sydney Hospital.

Macroscopic Characters of the Tumour.

THE growth measures 17 centimetres by 13 centimetres by 12 centimetres and weighs two kilograms (4.4 lbs.). Its outer surface is smooth and shows some dilated vessels. As seen in Figure I, the ileum is stretched over the growth like a strap and is firmly fixed to it. This figure also shows the relation of the tumour to the caecum. The appendix which was quite free, became turned upwards in the fixing solution.

Section through the middle of the tumour (Figure II.) showed the growth to be quite solid and without obvious necrosis. The centre is firm, dense, white and fibrous. The periphery is a little less dense and of a dark red colour due to blood. The small spaces in this zone are blood spaces.

Microscopical Characters.

The growth is essentially a spindle cell fibro-sarcoma composed mainly of long, narrow, spindle-shaped cells, in places densely packed, but for the most part loosely arranged. Figure III. shows a fairly typical appearance in the more compact areas. In some portions of the growth a myxomatous tendency is present; in others an attempt at the formation of dense fibrous tissue is to be observed.

The vascularity of the tumour is very variable. In the centre vessels are inconspicuous, but in the outer zone vessels are numerous and in places present an angiomatous appearance (Figure IV.). The walls of the vessels are composed of cells which closely resemble the elongated

cells of the growth proper and, indeed, I think it likely that the two varieties represent different evolutionary phases in the development of primitive mesoblastic cells, such cells being capable of developing through fibroblasts to white fibrous tissue on the one hand and through endothelial cells to the formation of blood vessels and spaces on the other.

The walls of these vessels are so thin that rupture readily takes place and the red cells insinuate themselves between the strands constituting the growth. In parts of the growth, especially where myxomatous changes are present, quite large hæmorrhages are to be seen. I am doubtful whether, in some instances where red cells are seen separating individual spindle cells, it might not be that the spindle cells are invading the blood as happens for instance in the organization of a thrombosed hæmorrhoid. I am the more inclined to think that this may be so, because there are in places among the red blood cells not only spindle cells corresponding to fibroblasts, but also young, thin-walled blood capillaries. If this theory be correct, it would seem that these spindle cells can on occasion forego their purposeless proliferation and carry out the functions which cells of such a type are wont to perform in health. Regarded from this point of view these portions of the tumour are analogous to young granulation tissue invading blood clot.

In addition to the types of blood vessels already described there is still another variety (Figure V.). At first sight this type appears to be a very thick-walled vessel surrounded by a clear zone of degenerate tissue which takes on a faint cytoplasmic stain. Closer examination shows that the lining layer is composed of cells similar to those constituting the thin-walled blood vessels elsewhere and that what appears to be a thick vessel wall is really a sheath of tumour cells. Why the sheath ends abruptly at the edge of the clear zone and why there is a clear zone is obscure. In some instances the clear zone extends to the actual single layer of cells forming the wall of the vessel, so that degeneration from inanition scarcely seems an adequate explanation.

Many of the thin-walled vessels in parts of the tumour are almost filled with leucocytes mainly polymorphonuclear cells (Figure I). The fact that the patient had a well marked leucocytosis is interesting in this regard. No satisfactory explanation of the leucocytosis is apparent. If the new growth were responsible, it might have accounted for the leucocytosis in one of two ways:

(a) As the result of necrosis with secondary suppuration in the tumour leading to stimulation of the leucoblastic marrow.

(b) By the formation of leucocytes locally in the tumour. With regard to the former of these two alternatives it must be stated that gross suppuration was not observed in the tumour. The second of these alternatives is at least worthy of consideration, for it is now widely accepted that hæmatopoiesis is not a function of bone marrow only. Unfortunately no blood films were made from the specimen in the fresh state and, though a little suggestive in places, the histological picture revealed no convincing evidence that active blood formation was occurring in the tumour.

Reviews.

DISEASES OF THE EAR, NOSE AND THROAT.

THE general practitioner or advanced student desirous of having at hand a text book of medium size dealing concisely and graphically with affections of the ear, nose and throat will find much satisfaction in opening Georges Laurens's book, the second English edition of which was recently issued.¹ The fact that the first English edition,

translated by H. Clayton Fox from the fourth French edition, was issued but eighteen months earlier and that a Spanish edition has appeared, evidences the appreciation that has been accorded the work. Perhaps the best part of the book is the profusion of illustrations, no fewer than 589 appear in the 350 pages. They are all of a simple diagrammatic type and greatly enhance the exposition of the text. In each of the four sections into which the book is divided—ear, nose, pharynx and larynx—a chapter is devoted to anatomy, another to the clinical examination and a third to the technique of treatment, all fully illustrated. Then follow chapters on the affections of the part, their diagnosis, prognosis and treatment. In connexion with the latter, the reader has definite advice on "what to avoid" as well as "what to do."

Special chapters are devoted to respiratory exercises and cocaine and its effects, while in short appendices the author deals with vaccine treatment, balneo-therapy and climato-therapy, industrial accidents, as well as life insurance in relation to oto-rhino-laryngology.

The subject matter is very clearly set out and by its grouping into sections and sub-sections, with captions in Gothic type, rapid reference is facilitated.

Various improvements are noticed on the first edition in the translation, but it is seen that some of the formulæ are presented in the metric system and others in the antiquated Imperial measures; the word *minims* often appears where obviously grains are meant. The teaching for the most part is in agreement with English standards, but in places there is considerable divergence, notably in connexion with the minor surgery of the tonsils. No attempt has been made to deal with every disease of the ear, nose and throat, but no condition commonly occurring in practice has been omitted and it is emphasized that the outfit required for their recognition is merely a laryngeal mirror, a speculum for ear and nose, a forehead mirror and a lamp. Descriptions of the technique of major operations are not included, being outside the scope of a small hand book, but indications for calling in the consultant in serious conditions are clearly enunciated.

This excellent volume may be confidently recommended and its continuing and deserved popularity seems assured.

TYPHUS FEVER.

IN a little work of fifty pages Drs. Mitchell and Richardson summarize their experiences with reference to typhus fever when accompanying the British Mission to Southern Russia during its occupation by General Denikin's army and his subsequent retreat.¹ They describe the epidemic of typhus fever which they witnessed there in the winter of 1919-1920, as the fiercest typhus epidemic ever known. Some of the passing details mentioned testify to the utter disorganization caused by the epidemic. They are careful to point out that this disorganization was in no way due to the Russian medical profession, who worked nobly against unprecedented difficulties. The chapters on prevention and causation and on the clinical features of the epidemic form an excellent summary of our present knowledge. The last-named chapter gives a very clear picture of the clinical features of the epidemic, but adds little that is new.

The last two chapters deal with special measures of treatment adopted. They are written by Dr. Asheshov, the bacteriologist attached to the mission. Methods of treatment by salvarsan and mercury, which were tried, are condemned. Nor did the treatment by specific serum therapy (with the serum of convalescents) give satisfactory results. Curative treatment by horse serum is spoken of more favourably, especially in the treatment of sequelæ. The most interesting chapter is that on the scheme of preventive inoculation attempted with defibrinated blood of patients in the early stage of the disease. A full de-

¹ "Oto-Rhino-Laryngology for the Student and Practitioner," by Dr. Georges Laurens; Authorized English Translation of the Fourth Revised French Edition, by H. Clayton Fox, F.R.C.S. (Irel.), with a foreword contributed by Sir J. Dundas-Grant, M.A., M.D., F.R.C.S.; The Second English Edition; 1922. Bristol: John Wright & Sons, Limited; Demy 8vo., pp. 333, with index, and 589 illustrations in the text. Price: 17s. 6d. net.

¹ "Typhus Fever: With Special Reference to the Russian Epidemics," by J. M. Mitchell, O.B.E., M.B., Ch.B. (Aberdeen), I. N. Asheshov, M.B., Ch.B. (Saratov), and G. P. N. Richardson, M.B., B.Ch. (Camb.); 1922. London: Baillière, Tindall & Cox; Demy 8vo., pp. 48. Price: 3s. 6d. net.

scription of the technique is given and the author speaks most encouragingly of the results of the experiment. The book is timely and as a record of active work done, is of interest and of value.

ST. IGNATIUS' COLLEGE MAGAZINE.

EVERY year a profusely illustrated and admirably compiled magazine is published by the members of St. Ignatius' College, Riverview, Sydney, under the title, "Our Alma Mater." The 1922 edition is one of the best issued in recent years. The illustrations include two aeroplane views of the school and its beautiful surroundings by Mr. Milton Kent, pictures of artistic merit. There are many other fine pictures of the school, portraits, groups, river scenes and so forth, chiefly the photographic work of Messrs. Dupen and Bradley. This year's "Our Alma Mater" gains more than usual interest by the inclusion of an interesting short article of the visit paid by the Reverend Father E. Pigot to Europe for the purpose of attending the first assembly of the International Astronomical Union at Rome. Father Pigot is a master at the school, the scientist in charge of the seismological observatory at Riverview, a recognized authority in geo-physics and astronomy, as well as seismology and a graduate in medicine of the University of Dublin. Attached to this descriptive article is a fine group of the delegates who attended the meeting of the Astronomical Union. Among the distinguished scientists in this group are Sir Frank Dyson, Professor Turner, Professor Fowler, Professor Sampson and Dr. Stratton, to mention only the English and Scottish delegates. In connexion with this article is a page of notes by Father Pigot on three new developments in his department. The first is the establishment of an astro-physics section of the observatory. Mr. J. Mann has presented a particularly valuable 7-inch Cooke refractor equatorial telescope in memory of his son, Alfred T. O. Mann, who was killed in action in 1916. This excellent instrument has been installed in temporary quarters, pending a further act of generosity, the donation of the wherewithal to build a substantial domed house for it. The second development is the equipment of a solar radiation station. Excavations have been begun for the underground chamber in which will be installed some delicate instruments for the measurement of the fluctuations of the solar constant. The third innovation is the pending arrival of three hyper-sensitive galvanometers for the new Russian seismograph, known as the Galitzin. This instrument has not hitherto been installed in the southern hemisphere.

The letter press of the magazine is in other respects excellent and topical. There are personal matters of interest to old boys and perhaps to many other citizens of Australia; there are school, religious and sporting chapters and there are literary efforts of promise. Among the many advantages of this splendid school is the recognition of the principle embodied in the conditions for the award of the Dr. McDonagh Gold Medal "for the greatest all-round proficiency in studies and sport." Where the body and the mind receive simultaneous care and training, the results are likely to be exceptionally good. John Sands Limited have done their work of printing and block making very well. We congratulate the editors and contributors of the 1922 edition of "Our Alma Mater" on a first-class production.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A MEETING OF THE SENATE OF THE UNIVERSITY OF SYDNEY was held on March 5, 1923.

Diploma in Psychiatry.

On the recommendation of the Faculty of Medicine it

was decided to establish a Diploma in Psychiatry, the draft By-Laws of which were approved by the Senate.

By-Laws.

1. A diploma entitled "Diploma in Psychiatry of the University of Sydney" may be awarded to candidates who have satisfied the conditions of the following By-Laws. The diploma shall testify to the candidate's proficiency in the branches of study, scientific and practical, which are concerned in the medical treatment of diseases of the mind.

2. An examination in psychiatry and the branches of knowledge which specially relate thereto shall be held from time to time at such times as the Senate shall appoint and shall be called "the Examination for the Diploma in Psychiatry."

3. Candidates for the Diploma in Psychiatry shall produce evidence satisfactory to the Senate:

- (i) That they are qualified medical practitioners registered by the New South Wales Medical Board.
 - (ii) That a period of not less than twelve months has elapsed after they have obtained registrable qualifications in medicine, surgery and obstetrics.
 - (iii) That, after obtaining registrable qualifications in medicine, surgery and obstetrics, they have been resident medical officers for six months in a mental hospital approved by the Senate, or have been in regular attendance at the rate of not less than six hours per week during term time in the wards of any similarly approved hospital devoted to the care and treatment of functional nervous and mental diseases for a period of not less than twelve months.
4. That, after obtaining registrable qualification in medicine, surgery and obstetrics, they have attended the following courses of lectures and demonstrations, namely:
- (a) Psychology; fifteen systematic lectures and ten demonstrations of two hours each in special practical psychology (thirty-five hours).
 - (b) Anatomy and physiology of the nervous system; ten lectures and ten demonstrations of two hours each (twenty hours).
 - (c) Neurology; ten lectures and ten clinical demonstrations in the wards of a general hospital (twenty hours).
 - (d) Pathology of the nervous system; ten lectures and demonstrations of not less than two hours each with special reference to microscopic anatomy, biochemical methods and the chemical examination and estimation of certain clinical symptoms (twenty hours in all).
 - (e) Psychiatry; ten systematic lectures in advanced psychiatry and in addition five lectures in mental deficiency and ten clinical demonstrations in the wards of a mental hospital or psychiatric clinic, provided that candidates must have previously attended the courses of lectures in psychiatry delivered to medical students in the sixth year of the curriculum or an equivalent of such course (twenty-five hours).

5. That they have passed written, clinical and *viva voce* examinations in psychiatry and neurology, a written and a practical examination in psychology and in the anatomy and physiology of the nervous system and a practical examination in pathology.

The courses of instruction shall be held during two terms in each year as required. Candidates who are unable to attend all the lectures and demonstrations in these two terms may, with the approval of the Dean of the Faculty of Medicine, take the remainder in subsequent terms, but all the courses must be completed and the candidate must present himself for examination within a period of six terms.

The Medical Journal of Australia

SATURDAY, APRIL 7, 1923.

The Autonomy of the Branches.

THE ANNUAL MEETINGS OF THE SEVERAL BRANCHES OF THE BRITISH MEDICAL ASSOCIATION in Australia serve to enable the members to take stock of their assets, to scrutinize the management and to consider how far their own unit of this representative organization has achieved the objects which Charles Hastings enunciated when he laid its foundation. It is the custom of the Councils of the Branches to hold these meetings for the purpose of receiving and discussing a report covering the previous twelve months and of listening to an address by the President on one or more special subjects of interest to the medical profession. In Australia membership of the British Medical Association is practically synonymous with membership of the medical profession. This powerful and important organization is the custodian of the honour and dignity of the medical profession. It exists for the furtherance of scientific medical knowledge and for maintenance of mutually good relations between the medical profession and the public.

In this issue are recorded the address of the retiring President and the annual report of the Council of the New South Wales Branch. Members should regard both as important documents, demanding careful study. In the year 1914 the membership of this, the largest Branch of the Association in Australia, was nine hundred and twenty. It is now, nine years later, twelve hundred and forty, an increase of nearly 34.8%. Members should remember that the British Medical Association is a democratic institution, that every member has a full vote, even though for convenience the government is vested in the Representative Body, a parliament of representatives for each unit of the Association—the Divisions or Branch-Divisions. It will

further be noted that the central Council has executive powers, but is not authorized to determine questions of policy. The Representative Body is based on democratic principles, for each representative receives the instructions of the members of the Division or Branch-Division that elects him and he is required to use his powers of argument and voting in accordance with those instructions. The members of the Council are elected without any orders to fulfil and their duties are fulfilled if they display judgement, discretion and wisdom in applying the principles laid down by the Representative Body. The Branches in Australia are Branch-Divisions and as such have representation in the Representative Body. As units of the Association they differ somewhat from the Divisions in the United Kingdom, in that to some extent their internal management is uncontrolled. The recent alterations of the Articles and By-Laws has introduced a new principle, namely the granting of complete autonomy to the overseas Branches desiring home rule without divorce. The Branches may seek incorporation under the local Companies' Acts as companies conducted not for gain, provided that they adopt a Memorandum of Association substantially the same as the Memorandum of Association of the parent body and Articles consistent with the objects as set out in the Memorandum of Association. It is of importance that every member of the Branches should understand the constitution of this organization. In the past only a minority of the members have taken an active interest in the affairs of the Branches. It is often stated that the Branches are useful only to practitioners engaged in friendly society lodge practice. This statement would not be made if the objects of the Association were recognized. It is true that the New South Wales Branch has, as have the other Branches in Australia, intervened in this form of contract practice and has placed it in an eminently satisfactory state, satisfactory to the medical officers of lodges and to the members of the lodges who are the patients under the system. But the Branches have much wider functions. In the first place, they act for the dissemination of knowledge and for the encouragement of original thought in scientific work. The papers read at meetings and the debates

associated with these papers are valuable instruments for these purposes. While the audience at these meetings is necessarily limited, the members have an opportunity of reading the papers and a summary of the discussions in the columns of THE MEDICAL JOURNAL OF AUSTRALIA.

In the next place, the Branches are concerned with many medico-political problems and with medico-ethical matters. The programmes of the meetings of the Federal Committee reveal the diversity of the activities of the Branches and are evidence of the incorrectness of the assumption that medical practitioners not holding lodge appointments receive little benefit from their membership of the British Medical Association. This complaint, founded on a lack of full knowledge of the circumstances, actually recoils on those who make it. They belong to the majority of members whose interest in the management of the Branches is wanting. It has been the experience of those placed in position of trust, namely, the members of the Branch Councils, that it is rare to obtain a response to a circular appeal or questionnaire from more than one-third of the members. It is not enough for this representative organization to comprise over 90% of the members of the medical profession. The indifference of many members detracts from the power and solidarity of the Branches and robs them of their democratic character. When the Branches take advantage of the new provisions for gaining a fuller measure of autonomy, members must awaken from their lethargy and make it their business to prevent the possibility of a suspicion of autocratic management. Every member has the right to nominate one or more members for election to the Council and to vote for his own nominees and for those candidates who have been nominated for office by others. A few years ago in the Metropolitan Counties Branch in the United Kingdom the Hare system of the transferable vote (proportional representation) was introduced into the election of members of the Branch Council, for the purpose of insuring that minorities might secure representation. This step proved eminently successful, partly by awakening interest and partly by providing Councils composed of men with strong views of the

most varied kind. While the preliminary steps are being taken to give effect to the altered conditions, the detached members should realize that there is work to be done to prepare for a stronger and more democratic body. Fearlessness in doing the right thing should be the motto of the Branches and of every member of the Branches.

Current Comment.

CREATININ EXCRETION AND RENAL FUNCTION.

TESTS of renal function may be undertaken in various ways. An analysis may be made of the various properties and constituents of the urine, as in the specific gravity test of Mosenthal or in the volume ratio for day and night urine, and these observations may be compared with those of a healthy individual. Observations may be made of the rate of excretion of some substance, such as phenolsulphonephthalein, introduced into the blood stream. Again tests may be made by the introduction into the blood stream of some substance normally present in the urine. This occurs in the urea concentration test. This test was discussed in the issue of this journal of July 1, 1922.

The concentration of creatinin in the blood and the rate of its excretion in the urine are so constant that it has been suggested that use might be made of these facts to introduce a test for renal function. Dr. Ralph H. Major has recently investigated this subject.¹ Dr. Major points out that in view of the constant excretion by the kidney of creatinin Austin, Stillman and Van Slyke advocated its use as a means of checking the accuracy of urine collections. He also refers to the work of Myers and Lough, who showed that in nephritis there is often an increase in the creatinin in the blood. They held that this was of diagnostic and prognostic value. Although creatinin is readily excreted by the normal kidney, the daily excretion may be diminished in nephritis. Dr. Major made a series of observations on patients suffering from different conditions. The procedure he adopted was to make the patient pass urine. He was then given a glass of water (about two hundred cubic centimetres) to drink. At the end of an hour he passed urine and the specimen was labelled specimen number one. The patient then received an intravenous injection of 0.5 gramme of creatinin; he drank another glass of water and passed specimen number two at the end of the second hour. He then drank another glass of water and passed specimen number three at the end of yet another hour. For the purpose of comparison the phenolsulphonephthalein test was made. At first this test was carried out on the day succeeding the injection of creatinin. Later on the two

¹ The Journal of the American Medical Association, February 10, 1923.

substances were injected simultaneously. Apparently Dr. Major did not think that the simultaneous injection of these substances would affect the test adversely. He states that no untoward reactions on the part of the patients were noted. In ten normal control experiments the average excretions in milligrammes for the three specimens were 64, 213 and 113. The amounts of urine passed varied considerably; lessened quantity of urine was compensated by increased concentration. In three of the control tests the phenolsulphonaphthalein percentage excretion was less when this test was combined with the creatinin test than when it was not so combined. He can offer no explanation for this difference. In ten patients suffering from various diseases but with no indication of kidney disease, the figures for the three specimens in milligrammes were 42, 186 and 103. The averages in ten patients suffering from arterial hypertension were 48, 180 and 82. Four patients with cardiac disease were studied. In two the percentages were definitely increased in the two last specimens. In one patient the increase was only slight and in the fourth the figures were those of a normal individual. The results in sixteen patients suffering from nephritis were very striking. In none was there an increase of creatinin excretion exceeding 50%, in some there was no increase and in others there was an actual decrease. The average figures for the three specimens were 43, 51 and 62.

The results obtained by Dr. Major are interesting and though the number of his experiments is small, it would seem that the test is useful and will find its place among other efficiency tests.

THE PLACENTA OF THE LIZARD *TILIQUA* *SCINCROIDES*.

We offer no apology for bringing to the notice of the readers of THE MEDICAL JOURNAL OF AUSTRALIA some researches by Professor T. Thomson Flynn, D.Sc., on the occurrence of the fully developed placental cycle in an Australian lizard. At present the records of scientific investigations into comparative morphology and specimens illustrating facts and doctrines connected with these investigations are scattered over so wide an area that the medical profession has little or no opportunity of becoming aware of this work. All biological problems are of concern to the physiologist, since a full understanding of the relation of structure to function may be materially assisted by an appreciation of the modifications of each met with in the lower forms of life. Professor Flynn¹ has recently had an opportunity of studying a specimen in the Australian Museum, labelled "Eggs, *Tiliqua scincoides*." It appears that a lady encountered a reptile in a garden in Hornsby, New South Wales, and not realizing its harmlessness, made a violent assault on it with a spade. The result was that the head end of the lizard was completely spoiled from the naturalist's point of view. The specimen in a damaged condition found its way to the Australian Museum, where it was discovered that it was a female *Tiliqua*

scincoides. The two oviducts with the ovaries were saved. Both ducts were greatly enlarged. Each enlargement corresponded to a developing embryo with its membrane and yolk sac. The total number of embryo was fifteen. Professor Flynn made a careful examination of some of these swellings. The embryo measured 8.5 millimetres in direct length and lay on its left side on the yolk sac. There were no traces of shell, shell membrane or egg white. It may be mentioned that Professor Flynn uses the term "albumen," but it is assumed that he wishes to indicate the albuminous fluid outside the yolk sac of the egg and not a mere solution of a protein. The allantois consisted of a stalk and an expanded hollow portion. His description renders it quite clear that the placenta corresponded to the mammal type, with fusion of the fetal membranes of the embryo with the uterine wall. The allantois consisted of an outer wall and an inner wall, of which the former was thicker and denser. Posteriorly the inner wall came into delicate relationship with the upper surface of the yolk sac, while anteriorly it came into intimate union with the amnion. It is usually taught that the lizard is oviparous, although one or two authorities have described some of the lizards as viviparous. Whether this is the normal mode of propagation will be revealed by further studies which Professor Flynn is now undertaking. In the specimen referred to above, there was a further point of interest. It was found that one method of vascular supply was by a direct cellular bridge across the allantoic cavity from the stalk to the mesenchymal layer of the placental side of the allantois. The author calls attention to the fact that this method of transmission of vessels has been described in connexion with a monodelphian mammal, the *Erinaceus*.

ARSENIC AND THE SPINAL CORD.

It is well known that syphilitic lesions of the cerebro-spinal nervous system are not so amenable to treatment by salvarsan and similar arseno-benzol derivatives as are lesions in other parts of the body. Some interesting experimental work has recently been done in this connexion by Drs. R. D. Rudolf and F. M. R. Bulmer.¹ Using rabbits for their experiments, these observers gave intravenous injections of "Phenarsenamine" in doses proportional to the usual human dose. Arsenic was found in the liver, but not in the cord when the animal was killed an hour after injection. No variation of this result was found with increased doses. Aqueous solutions of the drug and solutions in blood serum were injected intrathecally. Only if large amounts were injected was any arsenic found in the cord and these animals invariably suffered from paralysis. They refer to the findings of McIntosh and Fildes that the factors governing the passage of dyes into the brain after intravenous injection was their solubility reaction. They conclude that the beneficial results following intravenous injections of therapeutic doses of arsenic must be explained otherwise than by the presence of arsenic in the cord.

¹ "Records of the Australian Museum," Volume xiv, No. 1, February 28, 1923.

¹ The American Journal of the Medical Sciences, January, 1923.

Abstracts from Current Medical Literature.

MEDICINE.

Syphilis of the Lung.

W. T. MUNRO (*The Lancet*, December 30, 1922) has investigated the incidence of syphilis of the lung among patients of the Fife and Kinross Joint Sanatorium, Glenlomond. Among the first hundred patients examined, all of whom were admitted with the diagnosis of pulmonary tuberculosis, he found six whom he considered to be suffering from uncomplicated syphilis of the lung, eleven whose sputum contained tubercle bacilli and whose blood reacted to the Wassermann test, and three whose blood reacted similarly (two manifested signs of congenital syphilis) but were believed to be also tuberculous in despite of an inability to detect tubercle bacilli in their sputum. The author contrasts these figures with those of other investigators who considered the disease a rarity. J. K. Fowler could trace only twelve cases in the museums of the London hospitals. In 6000 *post mortem* examinations at Copenhagen Massia found two instances and in 3000 at the Massachusetts General Hospital. Downing could not find one instance. The late William Osler found syphilitic lesions of the lung in fourteen of 2,300 bodies examined at the Johns Hopkins Hospital. Peterson reported that an examination of the bodies of 88 patients who had suffered from acquired syphilis and had succumbed, revealed eleven instances of syphilis of the lung. In a review of the instances collected by him the author follows the classification of Norris and Landis, who divided acquired *lues* of the lung into three types, namely, gummata, fibroid induration and areas of consolidation and catarrh (diffuse broncho-pneumonia). Fibroid induration is the most common lesion. Patients affected with this form have a chronic cough, occasionally spit a little blood, but never have a large hæmoptysis. They have no fever, no distress and they can work. In the author's series the shortest time between the development of the primary sore and the appearance of symptoms referable to the chest was three and a half years, the longest eleven years. Late-appearing bronchiectasis was common. The fibrosis tended to involve chiefly the right base which was frequently dull to percussion, whereas the apices were normal in regard to percussion and auscultation. Anti-syphilitic treatment in each instance led to cure or definite improvement, but once bronchiectasis had set in, treatment was less effective. The author had no recognizable instance of gumma of the lung in his series. It is said to be very rare. When present, gummata are very numerous, vary in size from a millet seed to a hen's egg and become walled off

by thick fibrous tissue. Very rarely a large gumma may caseate, empty into a bronchus and produce a pulmonary cavity—the so-called syphilitic phthisis. The condition described as areas of consolidation and catarrh occurs during the secondary stage of infection and frequently persists into the tertiary stage. The lesion is broncho-pneumonic in type. A chronic cough with hoarseness of the voice due to laryngitis without ulceration is the rule. The condition may end in a fibrosis of the affected pulmonary areas, dilatation of certain bronchi and collapse of small areas of lung tissue. In addition to these three types there is the condition of congenital syphilis of the lung or "white pneumonia." Virchow described such a lung as dry, smooth, and greyish or yellow-white. Patches of consolidation may be present. There is a cellular infiltration involving the alveolar walls and a proliferation of the inter-lobar connective tissue (interstitial pneumonia). The *Spirochæta pallida* is present in enormous numbers. Finally the author quotes Clifford Allbutt's dictum that whereas the physical signs of *lues* of the lungs are at best equivocal, the onset of bronchitis after infection with syphilis should be remembered as a possible or even a probable manifestation of the syphilitic infection.

The Congenital Factor in Chronic Nephritis.

EDWARD WEISS (*The Journal of the American Medical Association*, September 30, 1922) maintains that insufficient attention has been paid to the hereditary and congenital factors which enter into the causation of chronic disease of the kidney substance. He supports Coplin, who has for many years contended that there exists in certain individuals a renal anomaly of developmental origin which predisposes to, or renders inevitable some form of nephritis. This anomaly takes the form of a hypogenesis or defective development of the kidney which is itself due to a defective arterio-genesis. Nephritis or uræmia occurring in young folk without adequate obvious cause should arouse a suspicion that the primary cause is to be found in this congenital defect of the kidneys. Ringer has expressed his dissatisfaction with the prevailing view in regard to the etiology of nephritis and has insisted that the various infections and intoxications play merely an exciting rôle, whereas the primary seat of trouble lies in the kidney itself. Stockard has said that every person dies from the disease with which he is born and that during the period of differentiation that organ is marked out which is the weak link in the chain. So long as the individual remains well, the renal condition goes unrecognized; but any infection or any strain, such as pregnancy, may cause a break in the weak link and lead to the onset of a recognizable nephritis. During the lifetime of the individual the kidneys are at

the limit of their capacity and a comparatively minor infection may result in a fatal uræmia. The author furnishes clinical and pathological evidence in support of his views.

Acute Suffocative Œdema of the Lungs.

L. F. BISHOP (*The Journal of the American Medical Association*, December 9, 1922) refers to certain attacks of œdema of the lungs, associated with severe dyspnoea and followed quickly by cough and expectoration. During an attack moist râles are heard on auscultation over both lungs. These persist for several days and gradually disappear. The day following the onset the patient suffers from great prostration and there is a slight rise of temperature. Recovery is complete and rapid. This condition is spoken of as acute suffocative œdema. It is frequently a complication of renal or cardiac affections, but it may be independent of any morbid condition. If the heart action be rapid, a diagnosis of dilatation of the heart may be made, but the cardiac signs are a natural reaction to the pulmonary condition which throws the burden on the heart and especially on the right ventricle and auricle. These attacks are not cardio-mechanical—not due to cardiac dilatation. They are due perhaps to chemical irritation of the lungs, the condition may be related to anaphylaxis. The active agent may be a nitrogenous body having some relationship to protein metabolism. Experience shows that when the proteins of the diet are limited, outdoor exercise insisted on and constipation prevented, the attacks cease or recur at very long intervals. Glyceryl trinitrate is the chief remedy for the attacks. Morphine comes next in importance. The patient should be made to leave bed after the attack subsides, since exercise tends to prevent further attacks.

The Recognition of Mild Hyperthyroidism.

J. L. MILLER AND B. O. RAULSTON (*The Journal of the American Medical Association*, November 18, 1922) discuss the salient diagnostic points in the recognition of mild degrees of hyperthyroidism. It is not long since a triad of symptoms and signs was regarded as necessary for the diagnosis of excessive activity of the thyroid gland—tachycardia, goitre and exophthalmos. Gradually physicians came to the conclusion that goitre and exophthalmos were not essential signs. In 1,400 instances of exophthalmic goitre recently reported from the Mayo clinic, exophthalmos was absent in 55%. Visible enlargement of the gland is not constant, though it is seldom absent. What, ask the authors, is the minimal clinical symptomatology necessary to make a diagnosis? Are some of a milder forms of hyperthyroidism still being overlooked? Transitory tachycardia and tremor, combined with increased nervousness,

should not necessarily be interpreted as hyperthyroidism. Nevertheless, the possibility of hyperthyroidism should be borne in mind in all patients suffering from "neurasthenia" when there is a history of tachycardia on excitement. Recognizable clinical symptoms may be lacking at the time of examination. Hence a careful history is invaluable. The chief points in such a history which facilitate the diagnosis, are transitory tachycardia on excitement and moderate exertion nervousness without cause and beyond the patient's control and tremor on excitement or exertion. If these symptoms persist for more than a few months, mild hyperthyroidism may with justification be diagnosed.

Hypersensitiveness to Silk.

J. A. CLARKE AND G. P. MEYER (*The Journal of the American Medical Association*, January 6, 1923) have reported the history of a patient who showed definite hypersensitiveness to silk. A woman student aged twenty-one years suffered from asthma. Her maternal great grandfather had been subject to asthma, a maternal uncle to eczema, a maternal first cousin to asthma and a paternal uncle to hay fever. The girl complained of asthmatic attacks during the previous months. They were becoming more and more severe. Physical examination revealed nothing of interest beyond a mild chronic eczema. Complete atopic tests were made with the usual inhalants and foodstuffs. Reactions were obtained with house dust, rice and flax seed and with of the less important foods. The reactions were not very pronounced. For several months attacks recurred at the rate of twice a week and the patient returned for further advice. She then volunteered the information that "welts" developed on her skin whenever it came in contact with silk. She had observed this phenomenon since an attack of influenza two years before. One blouse was so troublesome that she was unable to wear it, although it had been worn for a number of years without difficulty. The authors persuaded her to put on the blouse in their presence. Within fifteen minutes a giant urticaria developed on the skin of the arms, neck and chest down to the line of the under-clothing. This urticaria was very painful and resisted treatment. It lasted twelve hours. An extract of two sleeves of the blouse was made according to the method of Coca. This was tested by the intra-dermal method of Cooke, one test being made in each arm simultaneously. The total amount used was about 0.035 cubic centimetre. Within a few minutes the girl began scratching her palms and coughing. Urticaria became general; the eyes red, the lids swollen. The nose watered and was completely blocked by the swollen mucous membrane. An alarming attack of asthma ensued. Within two hours the entire reaction was over. Investigations were then made into the reaction from silk in all

stages of manufacture, from the raw project up to the finished article. These investigations were simplified by obtaining a strong cutaneous reaction with the extract of a single strand of silk just as it is taken from the cocoon. In this specimen there is nothing but the filament and the adherent glue. There is little doubt that the reaction is due to the rather soluble glue and not to the relatively insoluble fibre. After the severe reaction mentioned above the asthmatic attacks were infrequent and mild. One attack occurred while a girl friend who wore silk underwear, was undressing. The majority of the attacks could be traced to contact with this fabric.

Angina Pectoris.

R. LUTEMBACHER (*The Medical Press and Circular*, January 10, 1923), discusses the significance of a fall in blood pressure in *angina pectoris*. He describes two kinds of angina. One is called effort angina and in this there is no change of respiratory or cardiac rhythm and no modification of the blood pressure. The second form is known as *decubitus angina* and is accompanied by symptoms that point to acute dilatation of the heart, oedema of the lungs, rapid heart beat and a fall of blood pressure. The latter frequently follows exposure to cold or rain. It is accompanied by a fall in blood pressure from two hundred and fifty millimetres of mercury to perhaps eighty or ninety millimetres of mercury in a few hours. Sometimes the fall is more gradual, in a staircase fashion. At first there is pain but no dyspnoea. When the pain ceases an intense feeling of suffocation often follows. This is associated with a rapid irregular pulse of one hundred and fifty to two hundred per minute, pallor of the face and extremities and early death from syncope.

Bradycardia.

CH. FIESSINGER (*The Medical Press and Circular*, January 3, 1923) divides true bradycardia into bradycardia by dissociation, when the ventricles beat slowly while the auricles maintain their normal rhythm, and total bradycardia, when the slowing involves both auricles and ventricles. Congenital bradycardia, which is total, is usually of small significance. When dissociated bradycardia occurs, however, it is often the result of syphilis and this should be vigorously treated with mercury. Bradycardia following infections such as diphtheria and rheumatism is rarely fatal. Danger generally commences when the pulse is permanently slow and when the rate falls to twenty-five or thirty, though the condition may be serious even when the rate is not below forty. Syncope may occur in the early stages of bradycardia, but later tolerance is established and the patient can do his work without symptoms possibly for years. On auscultation sometimes a dull, muffled sound may be heard between two beats, representing an attenuated ex-

tra systole. Digitalis may be of benefit in such instances and may increase the rate of the heart by reinforcing these extra systoles. Digitalis, strophanthus, adrenalin, chloroform and asphyxiating gases may all cause a serious bradycardia. Total bradycardia may be improved by injections of atropine or by nitrite of amyl. Cardiac tonics are without good effect.

Chronic Splenomegaly.

W. C. CHANEY (*The Annals of Clinical Medicine*, November, 1922) discusses chronic splenomegaly from the pathological standpoint. He classifies enlarged spleens into three forms, (i) Gaucher's type; (ii) Lymphomatous type; (iii) Fibrous type. Of two hundred and forty-four spleens removed at the Mayo clinic, four were of the Gaucher type, of very large size and with well preserved shape. Microscopically large islands of endothelial cells were found surrounded by connective tissue; the cells were very large and contained from one to four nuclei. Five lymphomatous spleens were removed and these had no special characteristics. Most of the spleens removed were of the fibrous type and were from patients suffering from splenic anaemia, pernicious anaemia, hæmolytic jaundice, myelogenous leucæmia, syphilis, tuberculosis, biliary cirrhosis, portal cirrhosis and sepsis. Among these spleens certain special points were noticed. In those from patients suffering from pernicious anaemia arterio-sclerosis was present, in spleens from patients suffering from myelogenous leucæmia there was decrease in the lymphoid tissue, numerous myelocytes and nucleated red cells, increase in the reticulum and arteriosclerosis. In hæmolytic jaundice the spleen showed arteriosclerosis with increase of connective tissue. There was not evidence of phagocytosis in the spleen in this disease. Gallstones were found in 53%. This suggests that infection may be the cause of hæmolytic jaundice and the recovery that follows splenectomy, indicates that the spleen may be the centre of infection. Spleens from syphilitic patients showed mainly increase in the reticulum and arteriosclerosis and closely resembled the spleen of splenic anaemia; there were no histo-pathological findings that would enable the pathologist to make a diagnosis. The histo-pathological pictures of the spleens of splenic anaemia, pernicious anaemia, myelogenous leucæmia, hæmolytic jaundice and syphilis were all similar. This suggests that the spleen may play the same rôle in all the diseases characterized by splenomegaly. The spleen seems to act as a large lymphatic gland by removing toxic materials and even bacteria from the blood stream. Some of the splenic pulp is destroyed and replaced by fibrous tissue. Finally, so much splenic pulp is destroyed that the spleen can no longer dispose of infection and becomes a focus of infection from which the liver is attacked.

British Medical Association News.

ANNUAL MEETING.

NEW SOUTH WALES BRANCH.

THE ANNUAL MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the B.M.A. Building, 30-34, Elizabeth Street, Sydney, on March 23, 1923, Dr. T. W. LIPSCOMB, the President, in the chair.

Annual Report of Council.

THE HONORARY SECRETARY presented the Annual Report of the Council and moved that it be taken as read and received. The motion was seconded by Dr. J. ADAM DICK, C.M.G., and was carried after a short discussion.

ANNUAL REPORT OF THE COUNCIL, MARCH 23, 1923.

THE COUNCIL presents the following report on the work of the Branch for the year ended March 23, 1923.

Membership.

The membership of the Branch is now 1,240 as compared with 1,203 at the date of the last Annual Report.

The losses by death have been Dr. A. M. JOHNSON, Dr. A. L. McLEAN, Dr. W. F. LITCHFIELD, Dr. T. MYLES, Dr. E. K. HERRING, Dr. M. MAGILL, Dr. R. BOWMAN, Dr. G. HURST, Dr. H. F. SADLER, Dr. E. H. PIKE, Dr. W. H. TOMLINS, Dr. C. FRANCESCHI, Dr. A. O. HOWSE.

Meetings.

Ten ordinary meetings of the Branch, including the Annual Meeting, three extraordinary meetings, and eight clinical meetings were held. The average attendance was 63.3. Clinical meetings were held at the Royal Alexandra Hospital for Children, Royal Prince Alfred Hospital, Sydney Hospital, Royal Hospital for Women, Coast Hospital, Royal North Shore Hospital and the Pathological Department, University of Sydney. The business included thirty-four papers and addresses and numerous reports of cases and exhibits, as well as lantern demonstrations.

Representation.

The Branch was represented as follows:

- (a) *Council of the British Medical Association*: Sir T. JENNER VERRALL, LL.D.
- (b) *Representative Body (1922-1923)*: Representative, Dr. SINCLAIR GILLIES; Deputy Representative, Dr. J. W. DUNBAR HOOPER.
- (c) *Federal Committee of the British Medical Association in Australia*: (1922) Dr. J. A. DICK, C.M.G., Dr. R. H. TODD, (1923) Dr. J. A. DICK, C.M.G., Dr. R. H. TODD.
- (d) *Australasian Medical Publishing Company, Limited*: Dr. W. H. CRAIG, PROFESSOR F. P. SANDES, Dr. R. H. TODD.
- (e) *Australasian Medical Congress (British Medical Association)*, First Session, 1923, Melbourne: Vice-President of Congress representing the New South Wales Branch: Dr. T. H. FIASCHI, D.S.O., V.D.
- (f) *Council of Bush Nursing Association (1922-1923)*: Dr. T. W. LIPSCOMB.
- (g) *General Council of the Australasian Association for the Advancement of Science* (Wellington, New Zealand, January, 1923): Dr. HARVEY SUTTON, O.B.E., Dr. F. A. RODWAY.

Council.

(a) The attendance of Members of the Council and of the Standing Committees was as set out in the table on the next page.

(b) The representatives of the Local Associations of members appointed on the invitation of the Council to attend the regular quarterly meetings of the Council, were as follows: Dr. K. S. MACARTHUR BROWN (Central Western); Dr. A. M. GLEDEN (City); Dr. F. G. N. STEPHENS (Eastern Suburbs); Dr. W. F. SIMMONS (Illawarra Suburbs); Dr. W. B. DIGHT (Northern District); Dr. F. GUY GRIFFITHS (Northern Suburbs); Dr. J. G. W. HILL (South Sydney); Dr. H. BROWNE (Western Suburbs).

(c) The Council records with regret the sad death of one of its members, Dr. W. F. LITCHFIELD, which took place unexpectedly after a few hours' illness on June 22, 1922. Dr. LITCHFIELD had been a member of the Council for nine years, having been elected each year since 1914. He held the office of Honorary Medical Secretary for five years, 1918-1922, and was Chairman of the Organization and Science Committee for the same period. He took the greatest interest in the scientific work of the Association and the success which has attended the discussion of numerous important scientific subjects in recent years, was largely due to his efforts, while the development of clinical and other meetings at hospitals and public institutions was due to his initiation. His loss has been keenly felt and his place in the Council difficult to fill.

B.M.A. Building.

Dr. W. H. CRAIG has generously continued his services as Premises Attorney for the B.M.A. Building with the same successful results as hitherto.

Library.

Dr. J. ADAM DICK, C.M.G., was again appointed Honorary Librarian, and has exercised a careful supervision of that department of the Association's work. Donations of books and periodicals were received from Dr. L. W. ROBERTS, Dr. T. STORIE DIXON, Dr. E. BLACK, Sir A. MACCORMICK, DIRECTOR-GENERAL OF HEALTH (Commonwealth), Sir J. VERCO, THE AUSTRALASIAN MEDICAL PUBLISHING COMPANY, LIMITED, UNIVERSITY OF MELBOURNE.

Affiliated Local Associations of Members.

The following is a list of the Local Associations of members, with the names of their Honorary Secretaries:

- Balmain District*: Dr. W. B. GRANT.
Border: Dr. R. AFFLECK ROBERTSON.
City: Dr. H. A. RIDLER.
Central Northern: Dr. H. G. ALLEN.
Central Southern: Dr. R. G. WOODS.
Central Western: Dr. K. S. MACARTHUR BROWN.
Eastern District: Dr. H. T. MARSH.
Eastern Suburbs: Dr. W. EVANS.
Illawarra Suburbs: Dr. W. F. SIMMONS.
Northern District: Dr. E. B. FITZPATRICK.
North Eastern: Dr. A. M. ASPINALL.
Northern Suburbs: Dr. E. A. R. BLIGH.
Southern District: Dr. S. H. WEEDON.
South Eastern: Dr. H. H. LEE.
South Sydney: Dr. R. A. R. GREEN.
Western Suburbs: Dr. J. F. WALTON (Dr. W. M. A. FLETCHER Assistant Honorary Secretary).
Western: Dr. W. K. DALE.

Annual Meeting of Delegates.

The Eleventh Annual Meeting of the Delegates of the Affiliated Local Associations with the Council was held on October 6, 1922, at the B.M.A. Library, Sydney. An account of the Meeting appeared in THE MEDICAL JOURNAL OF AUSTRALIA, 1922, Volume II, page 482; and the proceedings were reported to the Local Associations.

The delegates were as follows: Dr. S. S. SHIRLOW (Balmain), Dr. R. A. ROBERTSON (Border), Dr. N. J. DUNLOP (Central Northern), Dr. G. A. BUCHANAN (Central Southern), Dr. A. M. GLEDEN (City), Dr. F. O. STOKES (Eastern District), Dr. F. G. N. STEPHENS (Eastern Suburbs), Dr. W. F. SIMMONS (Illawarra Suburbs), Dr. O. A. A. DIETHELM (North Eastern), Dr. E. W. BUCKLEY (Northern District), Dr. F. G. GRIFFITHS (Northern Suburbs), Dr. W. W. MARTIN (Southern District), Dr. L. FETHERSTON (South Eastern), Dr. A. I. BLUE (South Sydney), Dr. E. H. M. STEPHEN (Western Suburbs), Dr. J. T. PATON (Western).

Sections for Special Branches of Medical Knowledge.

- (a) *Section of Paediatrics* (inaugurated October 4, 1921.)

The officers were: *Chairman*, Dr. C. P. B. CLUBBE; *Vice-Chairmen*, PROFESSOR A. E. MILLS, Dr. J. MACDONALD GILL, Dr. W. F. LITCHFIELD; *Joint Honorary Secretaries*, Dr. E. SELWYN HARRISON, Dr. W. VICKERS; *Honorary Treasurer*, Dr. E. H. M. STEPHEN. Meetings were held on April 21 (in-

augural address by Dr. C. P. B. CLUBBE), August 18, September 14 (address by Dr. J. TRUBY KING), October 20 (clinical afternoon, Royal Alexandra Hospital for Children), December 1 (Tresillian Training Centre).

(b) *Section of Hygiene and Preventive Medicine (inaugurated January 3, 1922).*

The officers were: *Chairman*, Dr. W. G. ARMSTRONG; *Vice-Chairmen*, Dr. C. E. CORLETTE, Dr. C. W. REID; *Honorary Secretary*, Dr. C. J. WILEY. A meeting was held on April 7, 1922 (in conjunction with a meeting of the Branch), when Dr. W. G. ARMSTRONG delivered an address on "Plague" which was followed by a discussion.

The Medical Journal of Australia.

At the request of the Directors of the Australasian Medical Publishing Company, Limited, a proposal was submitted to a Meeting of the Branch, specially convened for the purpose on January 30, 1923, for expansion of the printing arrangements whereby the machining of the journal, in addition to the type-setting, could be done by the Company instead of, as at present, by an outside firm of printers. The meeting followed the course adopted by all the other Branches concerned and indicated its approval of the proposal with certain modifications of the details. The Directors have since decided to put the scheme into operation as soon as practicable. It involves the erection or purchase of a suitable building and the installation of printing presses and accessories, together with additional linotypes. It is understood that the Branches and their members are to be invited to find the necessary money on the security of debentures to be issued at a liberal rate of interest.

Contract Practice—Friendly Society Lodges.

The approved Common Form of Agreement between Medical Officer and Friendly Society Lodge, adopted in 1913, and amended in 1921, has continued to work satisfac-

torily; and the medical service constituted by it is of the utmost value to the community. It is understood that some 600,000 people in the State receive their medical attendance under it. The proposals introduced by the Friendly Societies' Association in August, 1921, for reduced rates for contract attendance on single female members and on juvenile members were renewed in 1922. The Local Associations again discussed them with a view to their being considered at the Annual (1922) Meeting of Delegates of the Local Associations with the Council. Although the support given to the proposals by the Local Associations was more favourable than in the previous year, there was a large majority against both of them. In order to obtain further guidance in the matter, the Council referred the two questions directly to the individual medical officers of the lodges by means of a voting paper. Returns were received from about 42% of the medical officers. The voting was as follows: (a) reduced rate for single females, 77% against, 23% for; (b) reduced rates for juveniles, 68% against, 32% for.

Standing Orders for General Meetings.

At the extraordinary general meeting of March 31, 1922, Standing Orders were adopted (a) for general meetings of the Branch (other than scientific meetings) and (b) for general (scientific) meetings, including clinical meetings.

Relations of Ophthalmic Surgeons and Opticians.

A resolution was passed by the Quarterly Meeting of the Council held October 3, 1922, to the effect that a medical man practising as a specialist in ophthalmic surgery ought not to delegate the testing of refraction and the prescribing of glasses to an optician.

Relationship between the Parent Association and Overseas Branches.

Amendments of the Regulations of the British Medical Association were made at the Annual (1922) Meeting of

ATTENDANCE OF MEMBERS OF THE COUNCIL AND OF THE STANDING COMMITTEES OF THE COUNCIL.

Office-Bearers.	Council.	Executive and Finance Committee.	Ethics Committee.	Organization and Science Committee.	Medical Politics Committee.	Medical Journal Sub-Committee (Executive and Finance Committee).
DR. GEORGE ARMSTRONG	7	11	—	—	—	7
DR. J. E. V. BARLING	7	—	—	10	—	—
DR. F. BARRINGTON (Ex-President)	9	11	—	—	—	6
DR. C. B. BLACKBURN, O.B.E.	8	—	9	—	—	—
DR. A. J. BRADY	8	—	12	—	—	—
DR. W. H. CRAGO (Honorary Treasurer; Premises Attorney)	11	13	11	4	11	8
DR. F. BROWN CRAIG (Honorary Medical Secretary)	11	—	—	13	—	—
DR. A. DAVIDSON	11	11	10	—	—	—
DR. J. A. DICK, C.M.G. (Honorary Librarian)	9	13	—	—	10	—
DR. E. M. HUMPHREY ¹	5	—	—	8	—	—
DR. SYDNEY JAMIESON	9	7	—	—	—	—
DR. C. H. E. LAWES (Vice-President)	8	3	1	—	13	1
DR. T. W. LIPSCOMB (President)	11	14	13	—	12	7
DR. R. J. MILLARD, C.M.G.	8	—	—	—	3	—
PROFESSOR A. E. MILLS	10	—	—	11	—	—
DR. W. C. MCCLELLAND	6	—	—	—	10	—
DR. A. A. PALMER	10	—	12	—	—	—
DR. S. A. SMITH	10	—	—	—	7	—
DR. R. H. TODD (Honorary Secretary)	11	14	14	13	7	9
DR. R. B. WADE	9	—	13	—	—	—
Number of Meetings Held . . .	11	14	14	13	13	9

¹ Elected June, 1922, to fill vacancy caused by the death, 22.6.22, of Dr. W. F. Litchfield.

DR. A. W. CAMPBELL (Neurology and Psychiatry);
DR. R. B. WADE (Diseases of Children).

Vice-Presidents: DR. C. B. BLACKBURN, O.B.E. (Medicine); DR. GEORGE ARMSTRONG (Obstetrics and Gynaecology); DR. A. H. TEBBUTT, D.S.O. (Pathology and Bacteriology); DR. R. T. PATON, C.M.G. (Preventive Medicine and Tropical Hygiene); DR. J. C. W. HALLIDAY (Ophthalmology); DR. J. ADAM DICK, C.M.G., V.D. (Naval and Military Medicine and Surgery); DR. J. G. EDWARDS (Radiology and Medical Electricity).

Federal Committee.

The Federal Committee of the British Medical Association in Australia met in Sydney on July 18 and 19, 1922, and in Melbourne on February 7 and 8, 1923. Reports of the proceedings were published in THE MEDICAL JOURNAL OF AUSTRALIA, 1922, Volume II, pages 137 to 141, and 1923, Volume I, pages 216 to 218.

Financial Statements.

DR. W. H. CRAGO, the Honorary Treasurer, presented the Financial Statement as shown below. In moving its reception, he pointed out that contributions varying in amount from ten shillings to fifty pounds, had been received from two hundred and thirty-eight members toward the Litchfield Fund. The total amount handed over to Mrs. Litchfield was £295 15s. The motion was seconded by DR. F. BROWN CRAIG and was carried.

DR. CRAGO also presented the statement of the premises account. The net profit for the year was £1,283 7s. 6d., which was £246 5s. 9d. more than that of the previous year. The debentures had been reduced by £160 and the mortgages by £750. The former then stood at £11,640 and the latter at £7,000.

On the motion of THE PRESIDENT a hearty vote of thanks and congratulations was accorded Dr. Crago for his able management of the finances of the Branch.

DR. CRAGO moved, and DR. SYDNEY JAMIESON seconded, the following motion which was carried by acclamation:

That the thanks of the meeting be conveyed to
DR. A. M. GLEDDEN AND DR. F. W. HALL for their
services as Auditors.

President's Address.

DR. T. W. LIPSCOMB delivered an address (see page 365).

DR. C. H. E. LAWES said that he had much pleasure in moving a hearty vote of thanks to Dr. Lipscomb for his interesting and instructive address. He recognized that these addresses were immune from criticism, but he could not resist the temptation of expressing the opinion that Dr. Lipscomb's lecture was full of the best advice and ideas. It was a fitting climax to the year's work of their friend, a piece of work of a very solid and earnest character. He had not spared himself in the least and had given time and energy to the affairs of the Branch.

The motion was seconded by DR. R. J. MILLARD, C.M.G., C.B.E., and was carried with acclamation.

DR. LIPSCOMB thanked the members for their expression of appreciation.

Election of Office-Bearers.

THE PRESIDENT announced the result of the election of office-bearers and members of the Council:

President: DR. C. H. E. LAWES.

Vice-President: DR. A. DAVIDSON.

Members of the Council: DR. GEORGE ARMSTRONG, DR. J. E. V. BARLING, DR. F. BARRINGTON, DR. C. B. BLACKBURN, DR. W. H. CRAGO, DR. F. BROWN CRAIG, DR. J. A. DICK, DR. J. G. W. HILL, DR. E. M. HUMPHERY, DR. SYDNEY JAMIESON, DR. T. W. LIPSCOMB, DR. W. C. MCCLELLAND, DR. R. J. MILLARD, PROFESSOR A. E. MILLS, DR. A. A. PALMER, DR. S. A. SMITH, DR. R. H. TODD and DR. R. B. WADE.

He referred to the retirement of Dr. A. J. Brady, who had not allowed himself to be nominated for re-election. Dr. Brady was one of the original members of the Branch. In the records, it was found that when the Branch was founded in 1880, Dr. Brady's name was tenth in the list of those who paid their subscription. He had remained a member for forty-four consecutive years. He joined the Council in 1882 and had served for three years. He had been Honorary Treasurer in 1884. He had then spent some time abroad, but in 1893 his name had again been placed among those of the Councillors. In 1899 he had again been elected to the Council and since that date he had been returned year after year. Dr. Lipscomb said that he

THE MEDICAL BENEVOLENT FUND OF NEW SOUTH WALES.

The Treasurer in Account with the New South Wales Benevolent Fund.

	£	s.	d.
Dr.—1923.			
Balance Brought Forward from March 31, 1922	188	10	8
Subscriptions from March, 1922, to March, 1923	34	4	6
	<u>£222</u>	<u>15</u>	<u>2</u>

	£	s.	d.
Cr.—1923.			
Money Disbursed to Deserving Cases, as Directed by Committee	24	10	0
Bank Fees		0	10
Bank Exchange		0	4
Printing		2	5
Balance as per Pass Book	£202	0	7
Less Cheque to Sir Herbert Maitland for Cash paid out of his own pocket		6	15
	<u>195</u>	<u>5</u>	<u>7</u>
	<u>£222</u>	<u>15</u>	<u>2</u>

	£	s.	d.
At Deposit in Savings Bank of New South Wales, plus Interest to June 30 1922	361	2	6
Balance at Credit Current Account, Commercial Banking Company, as per Pass Book	195	5	7
Total Credit	<u>£556</u>	<u>8</u>	<u>1</u>

Audited and found correct,

ARCHIE ASPINALL.

H. L. MAITLAND,
Honorary Secretary.

had not known Dr. Brady to miss a single meeting of the Council. The value of his services to the Branch had been immeasurable. He had worked with particular assiduity for the Ethics Committee and had mastered the subject. It was men like Dr. Brady who had made the Branch what it was. He asked the meeting to thank Dr. Brady for the valuable work he had carried on in its interests.

DR. W. H. CRAGO seconded the motion. He stated that he reiterated most cordially all the good things that Dr. Lipscomb had said about Dr. Brady.

DR. A. J. BRADY thought that Dr. Lipscomb had flattered him beyond his merits. He thanked him notwithstanding. He had always had the interests of the Branch at heart, and had done what he could to help. He thanked the members for their expression of trust in electing him year after year. Dr. Brady thought that every man should recognize when the time had arrived for his retirement. He had come to the conclusion that he had arrived at the time when he should make room for the younger men. Moreover, he considered that he should be excused from attending late meetings. He thanked the members for their kind expressions of appreciation.

DR. W. H. CRAGO moved and PROFESSOR A. E. MILLS seconded a motion to the effect that Drs. F. W. Hall and A. Maitland Gladden be elected auditors for the ensuing year.

The motion was carried.

On the motion of DR. C. H. E. LAWES, seconded by DR. R. B. WADE, it was resolved that Dr. Sinclair Gillies be the Representative of the Branch in the Representative Body for the twelve months 1923-1924.

On the motion of DR. R. GORDON CRAIG, seconded by DR. McCLELLAD, it was resolved that Dr. O. A. A. Diethelm and Dr. L. E. Ellis be the delegates of the Branch at the Annual Meeting of the Association to be held at Portsmouth in July, 1923.

The Medical Benevolent Fund of New South Wales.

In the absence of SIR HERBERT MAITLAND, the Honorary Secretary of the Medical Benevolent Fund of New South Wales, DR. R. H. TODD, presented the Annual Financial Statement and moved that it be received. This was effected and the Committee was re-elected. The Trustees are DR. ROBERT FAITHFULL and DR. F. W. HALL; SIR HERBERT MAITLAND is the Honorary Secretary, DR. R. F. FAITHFULL is the Honorary Treasurer, and DR. F. W. HALL and DR. J. MACDONALD GILL are also members of the Committee. The Financial Statement is printed on the preceding page.

Induction of President.

DR. LIPSCOMB, in introducing his successor in the chair, DR. C. H. E. LAWES, said that he knew of no one better equipped to occupy this important position. If every member of the Branch was like Dr. Lawes, there would be no work for the Ethics Committee.

DR. LAWES thanked the members for having elected him President for the ensuing twelve months. He also thanked Dr. Lipscomb for his kind remarks. He referred to the brass tablet attached to the back of the President's chair. On this tablet there were the names of all the past Presidents, including that of Dr. Lipscomb. It was no easy task to follow in the footsteps of these eminent and distinguished men. He promised to do his best.

MEDICO-POLITICAL.

AN EXTRAORDINARY MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the B.M.A. Building, 30-34, Elizabeth Street, Sydney, on March 23, 1923, after the Annual Meeting, DR. C. H. E. LAWES, the President, in the chair.

The following motion, which was proposed by DR. R. H.

TODD, on behalf of the Council, and seconded by PROFESSOR A. E. MILLS, was carried without dissent:

That the Regulations governing the annual subscription of members of the Branch be amended by the addition thereto of the following, namely:

(a) In the case of two members being husband and wife residing together, their joint annual subscription shall be two pounds, two shillings less than the sum total of their respective subscriptions would be if paid separately.

Congress Notes.

THE AUSTRALASIAN MEDICAL CONGRESS (BRITISH MEDICAL ASSOCIATION).

THE EXECUTIVE COMMITTEE OF THE AUSTRALASIAN MEDICAL CONGRESS (BRITISH MEDICAL ASSOCIATION) have arranged that the Inaugural Meeting of Congress will be held at 8.30 p.m. on November 12, 1923, in the Medical School, University of Melbourne. The programme will include the presentation of the Gold Medal of the Branches of the British Medical Association in Australia to DR. R. H. TODD and to DR. W. T. HAYWARD, C.M.G., which has been instituted by the Federal Committee.

The Sessions of Congress will be held in the new Anatomy Building, which will be opened on November 12, 1923, during the afternoon. The lecture rooms of the Medical School will also be used for meetings of sections. The session of the combined sections on November 17, 1923, at which the subject of tuberculosis will be discussed, will be held in the large lecture theatre in the Arts Building of the University.

During the afternoon of November 12, a reception will be given by the President and Mrs. G. A. Syme.

There will be an exhibition of appliances and materials used in the combating of quarantinable diseases and in connexion with other public health activities. The exhibit is being organized by the Department of Health of the Commonwealth, with the assistance of the Departments of Public Health of the several States. We understand that the experience gained in the Great War will be utilized for this purpose and that the exhibit will be one of considerable scientific interest and value.

The Manager in Australia of the firm of Pathé Frères is supplying a skilled operator with an up-to-date projection apparatus. Members of Congress desiring to demonstrate cinematograph films to illustrate work they propose to bring before the Sections, should notify the Secretary of the Section.

General Sir John Monash, K.C.M.G., Chairman of the Electricity Commission, will conduct a party of visiting members on November 19, 1923, over the extensive works at Yallourn, where brown coal is being converted into briquettes by modern machinery and where electrical power is being generated for supply throughout the State of Victoria. This excursion will be limited to about one hundred and fifty visiting members.

The excursion organized by the members of the Melbourne Medical Association for November 17, 1923, will be to Healesville, which is situated among the most beautiful mountain ranges of Victoria. It will include a visit to the establishment of Dr. Colin Mackenzie, who has been engaged in research in the comparative anatomy of the fauna of Australia for several years.

The Congress dinner will be held at 7.30 p.m. on November 15, 1923. The Earl of Stradbroke, Governor of the State of Victoria, will be present. Tickets for the dinner will be available to members on the payment of one guinea in addition to the subscription to Congress.

The Trade Exhibition will be placed in one of the new dissecting rooms of the Anatomy Building and will be in a prominent position. It will be easily accessible to members going to and from the meetings of the sections.

Correspondence.

RAILWAY CONCESSIONS TO CONGRESS.

SIR: In connexion with the Australasian Medical Congress to be held in Melbourne on November 12, 1923, the executive committee has secured a reduction in fares from the railway commissioners provided members arrive in Melbourne on or after Thursday, November 8.

I would suggest that an effort be made to have the concession granted to enable members to arrive in Melbourne on or after November 1. This would give members who are interested in racing and live in distant States like West Australia, a chance of attending the racing and the Congress and availing themselves of the concession.

Yours, etc.,

T. L. ANDERSON.

A.M.P. Chambers, Perth.
February 28, 1923.

THE USE AND MISUSE OF THE TOOTH BRUSH.

SIR: In recent years the cleansing of the teeth with tooth brushes has become almost general. But do we use the proper kind of brush and do we use it correctly? I venture to assert that we do not. In the first place the tooth brush is usually too hard, even the softest variety, and also we use it too roughly on the gums themselves. Many people invariably make their gums bleed and even where the gums do not bleed, examination of the gums with a low-powered magnifying glass reveals numerous abrasions. Surely the constant abrasions of the gums is anything but beneficial, especially when we tend to inoculate the gums with the various microbes present in the mouth and in the tooth brush itself. Some time ago bacteriological examination of numerous tooth brushes from the average clean person revealed innumerable colonies of large varieties of germs. Consider the average tooth brush and how it is left lying about in a glass all day long after having been contaminated by rubbing on the teeth. Very little, if any, attempt is made to keep the brush clean and I doubt if any ordinary method of washing (the usual thing) is in any way of any value in keeping a tooth brush clean. After trying various methods I find the following very efficacious and simple, and inexpensive in keeping a tooth brush reasonably clean.

A lump of thymol in a glass tube with water is used and the tooth brush is kept in this solution. Water is added as required. This gives a solution of one in fifteen hundred (saturated solution in cold water) and as this strength can kill the *Bacillus coli* in two and a half minutes the brush immersed, when not in use, in this can be reasonably supposed to be clean. My method of keeping the teeth clean is as follows:

(i) Rinse mouth out thoroughly after meals and thereby get rid of all gross particles.

(ii) Brush the teeth with the softest possible tooth brush taken from above solution taking care not to injure the gums in so doing. The softest possible tooth brush should be used and, if procurable, one not made of bristles which only abrade the gums. I venture to assert that pyorrhœa has for its most common cause the use of the average tooth brush which not being clean and too roughly used and injury caused by the bristles to the gums, causes gingivitis. This gingivitis being constantly aggravated by the septic tooth brush in time easily can lead to trouble further down in the sockets of the teeth. The idea tooth brush should be one that can be used so as not to abrade the gums, hence a bristle one is unsuitable. Then the tooth brush should be kept in a suitable solution to keep it clean and still a non-irritating solution. The above solution of thymol I consider fulfils the conditions.

Yours, etc.,

A. J. J. TRIADO.

22 Collins Street,
Melbourne. (Undated.).

Naval and Military.

APPOINTMENTS.

THE following appointments, changes *et cetera* have been promulgated in *Commonwealth of Australia Gazette*, No. 18, of March 8, 1923:

Australian Military Forces.

FIRST MILITARY DISTRICT.

Australian Army Medical Corps.

CAPTAIN C. M. LILLEY is transferred to the Reserve of Officers, 23rd January, 1923.

Reserve of Officers.

LIEUTENANT-COLONEL H. L. ST. V. WELCH, D.S.O., is transferred to the Reserve of Officers, Second Military District, 1st March, 1923.

SECOND MILITARY DISTRICT.

Reserve of Officers.

LIEUTENANT-COLONEL H. L. ST. V. WELCH, D.S.O., is transferred from the Reserve of Officers, First Military District, 1st March, 1923.

THIRD MILITARY DISTRICT.

Australian Army Medical Corps.

MAJOR J. C. CAMPBELL, D.S.O., is appointed from the Reserve of Officers, and to be supernumerary to the establishment of Majors with pay and allowances of Captain, 1st October, 1922.

CAPTAIN J. F. PATRICK is appointed from the Reserve of Officers, 23rd January, 1923.

HONORARY CAPTAIN M. JACOBS is appointed from the Australian Army Medical Corps Reserve and to be Captain, provisionally, 8th February, 1923.

CAPTAIN J. I. CONNOR is transferred to the Unattached List, 22nd January, 1923.

Australian Army Medical Corps Reserve.

HONORARY CAPTAIN R. M. W. WEBSTER, M.C., is transferred to the Australian Army Medical Corps Reserve, Sixth Military District, 15th December, 1919.

THE notification respecting the transfer to the Australian Army Medical Corps Reserve, Sixth Military District, of HONORARY CAPTAIN R. M. WEBSTER, which appeared in Executive Minute No. 55/1920, promulgated in *Commonwealth of Australia Gazette*, No. 13, dated 5th February, 1920, is cancelled.

HONORARY CAPTAINS G. A. EADIE and J. C. BAIRD are retired under the provisions of Australian Military Regulation 152 (1), 31st December, 1922.

SIXTH MILITARY DISTRICT.

Reserve of Officers.

To be Major.—HONORARY CAPTAIN R. M. W. WEBSTER, M.C., from the Australian Army Medical Corps Reserve, 1st January, 1921.

THE notification respecting the grant of the substantive rank of Captain to HONORARY CAPTAIN REGINALD M. WEBSTER, Australian Army Medical Corps Reserve, which appeared in Executive Minute No. 470/1921, promulgated in *Commonwealth of Australia Gazette*, No. 94, dated 8th December, 1921, is cancelled.

Australian Army Medical Corps Reserve.

HONORARY CAPTAIN R. M. W. WEBSTER, M.C., is transferred from the Australian Army Medical Corps Reserve, Third Military District, 15th December, 1919.

THE notification respecting the transfer from the Australian Army Medical Corps Reserve, Third Military District, of HONORARY CAPTAIN R. M. WEBSTER, which appeared in Executive Minute No. 55/1920, promulgated in *Commonwealth of Australia Gazette*, No. 13, dated 5th February, 1920, is cancelled.

Public Health.

PLAGUE REGULATIONS.

THE INTER-STATE REGULATIONS FOR THE CONTROL OF PLAGUE have been withdrawn by the Department of Health for the Commonwealth. The last case in a human being took place on July 9, 1922, while the last infected rodent was captured on October 31, 1922.

Books Received.

CLINICAL SYMPTOMATOLOGY OF INTERNAL DISEASES: PART II, GENERALIZED PAIN, by Professor Dr. Norbert Ortner, Vienna; Authorized Translation by Francis J. Rebman; 1922. New York: Medical Art Agency; Sydney: Angus & Robertson, Limited; Post 8vo., pp. xii. + 596. Price: 25s. net.

ABDOMINAL PAIN, by Professor Dr. Norbert Ortner, Vienna; Authorized Translation by William A. Brams, M.D., Medical Corps, United States Navy, and Dr. Alfred P. Luger, University of Vienna; 1922. New York: Rebman Company; Sydney: Angus & Robertson, Limited; Post 8vo., pp. xii. + 362. Price: 17s. 6d. net.

Medical Appointments.

DR. F. L. UTBER (B.M.A.) has been appointed Coroner at Cooma, New South Wales, and a Coroner for the State generally.

DR. A. E. VIVIAN (B.M.A.) has been appointed District Medical Officer and Public Vaccinator at Quairading, Western Australia.

DR. K. F. ABERNETHY (B.M.A.) has been appointed District Medical Officer and Public Vaccinator at Kojonup, Western Australia.

DR. A. W. HAWTHORNE has been appointed Deputy Licensing Magistrate of the Licensing Court for the Licensing District of Carcoar, New South Wales.

THE undermentioned have been appointed Members of the Licensing Courts for the Licensing Districts in New South Wales: DR. W. FENWICK, M.C. (B.M.A.), of Grenfell; DR. J. B. MOORE (B.M.A.), of Bathurst.

THE following have been appointed Government Medical Officers in New South Wales: DR. F. A. BURNS (B.M.A.) at Crookwell and DR. O. A. FIELD (B.M.A.) at Junee.

DR. C. K. COHEN (B.M.A.) has been appointed Oculist on the Honorary Medical Staff of the Newington State Hospital and Asylum, New South Wales.

THE COUNCIL OF THE UNIVERSITY OF MELBOURNE has appointed DR. MARION WANLISS (B.M.A.) as Cancer Research Scholar and DR. BEATRICE WARNER (B.M.A.) as Clinical Research Scholar.

THE undermentioned appointments for 1923 have been confirmed by the Senate of the University of Sydney:

MESSRS. F. H. H. WILSON, G. WALKER, A. C. T. KELLICK, W. B. S. BISHOP, R. V. NEWMAN and H. F. WHITWORTH as Demonstrators in Chemistry.

DR. L. W. DUNLOP as Tutor in Medicine and DR. H. C. ADAMS as Tutor in Anæsthetics, Sydney Hospital.

DR. V. M. COPPLESON as Demonstrator in Anatomy, including Histology.

DR. J. C. STOREY, DR. E. M. FISHER, DR. H. C. R. DARLING, DR. L. G. TEECE, DR. B. T. EDYE, DR. C. E. WASSELL, DR. C. L. CHAPMAN as Part-time Demonstrators in Anatomy.

MR. T. HANNAN as Demonstrator in Pharmacy.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C..

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	Australian Natives' Association Ashfield and District Friendly Societies' Dispensary Balmalm United Friendly Societies' Dis- pensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies' Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phoenix Mutual Provident Society
VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne	All Institutes or Medical Dispensaries Australian Prudential Association Pro- prietary, Limited Manchester Unity Independent Order of Oddfellows Mutual National Provident Club National Provident Association
QUEENSLAND: Hon- orary Secretary, B. M. A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Insti- tute Stannary Hills Hospital
SOUTH AUSTRALIA: Honorary Secretary, 12, North Terrace, Adelaide	Contract Practice Appointments at Ren- mark Contract Practice Appointments in South Australia
WESTERN AUS- TRALIA: Honorary Secretary, Saint George's Terrace, Perth	All Contract Practice Appointments in Western Australia
NEW ZEALAND (WELLINGTON DIVI- SION): Honorary Secretary, Wellin- gton	Friendly Society Lodges, Wellington, New Zealand

Diary for the Month.

- APR. 10.—New South Wales Branch, B.M.A.: Ethics Committee.
APR. 11.—Victorian Branch, B.M.A.: Branch.
APR. 11.—Western Australian Branch, B.M.A.: Council.
APR. 11.—Melbourne Paediatric Society.
APR. 12.—Victorian Branch, B.M.A.: Council.
APR. 13.—New South Wales Branch, B.M.A.: Clinical Meeting.
APR. 13.—Queensland Branch, B.M.A.: Council.
APR. 13.—South Australian Branch, B.M.A.: Council.
APR. 17.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
APR. 18.—New South Wales Branch, B.M.A.: Section of Pædi-
atrics, Annual Meeting.
APR. 18.—Western Australian Branch, B.M.A.: Branch.
APR. 20.—Eastern Suburbs Medical Association, New South
Wales.
APR. 20.—New South Wales Branch, B.M.A.: Section of
Hygiene and Preventive Medicine.
APR. 21.—Western Suburbs Medical Association, New South
Wales: Annual Meeting.
APR. 24.—New South Wales Branch, B.M.A.: Medical Politics
Committee; Organization and Science Committee.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles for-
warded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.
All communications should be addressed to "The Editor,"
THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34,
Elizabeth Street, Sydney. (Telephone: B. 4635.)

SUBSCRIPTION RATES.—Medical students and others not re-
ceiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of mem-
bership of the Branches of the British Medical Association in the
Commonwealth can become subscribers to the journal by apply-
ing to the Manager or through the usual agents and book-sellers.
Subscriptions can commence at the beginning of any quarter and
are renewable on December 31. The rates are £2 for Australia
and £2 5s. abroad per annum payable in advance.